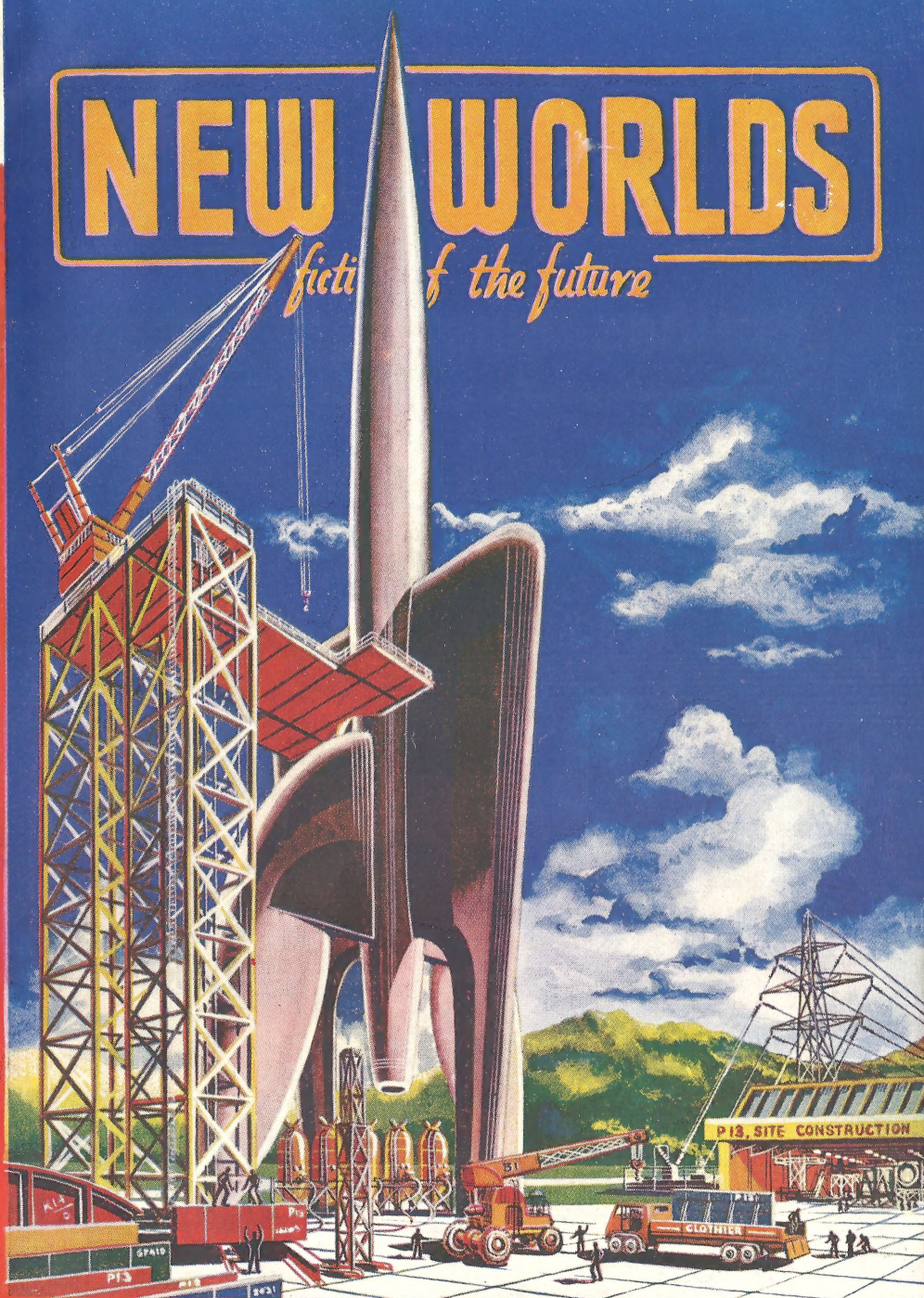


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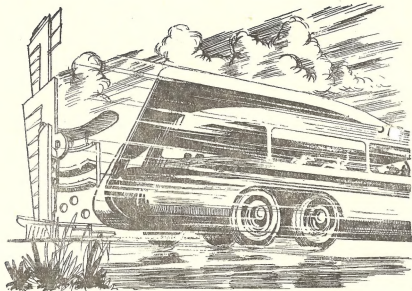
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TIME WAS . . .

By F. G. RAYER

It was the first faster-than-light ship to be designed. There was no reason on Earth why it shouldn't succeed. Elsewhere, there were other opinions . . .

Illustrated by CLOTHIER

High buildings and wide, busy streets baked under the evening sun. Beyond the city boundary, a shining spear upthrust at the sky, gleamed a vessel that overtopped even the green and cream buildings. Nick Riordan withdrew from the window and put on his tie. There had never been a vessel like the *Project 13*, he thought—could never be another like her, for she was the first of her kind. Little ships had made their tiny journeys to the other planets in the system, but *Project 13* used molecular combustion and should reach other galaxies. She was the trail-maker. The others—for there would be others, he was sure—would only follow.

"Still dreaming, Nick?"

NEW WORLDS



He turned from the mirror and put on his jacket. His wife smiled wistfully, her eyes turned down. Her chin was level with his shoulder and he lifted it.

"Who doesn't, when he's making history, Niora? *Project 13* can take men out of this system. Doesn't that thrill you?"

Niora lifted thin, pencilled brows. "Perhaps. Things like that mean less in a woman's life. The inventor of gunpowder created history, too."

Nick examined her, a deep wrinkle of concentration on his forehead. Her judgment was usually sound; her face had a purposeful look and could be stubborn, despite her beauty, but was abruptly illuminated by a smile.

"You'll be late to see Alfred Somers, Nick," she reminded him. "It'll take you an hour to reach his place."

"It will," he agreed. "Changed your mind?"

"No, Nick. I won't come. When men talk shop about things women don't understand we're better out of it."

Nick rode the lift three floors down to street level and got his saloon from the basement garage. Alf Somers was one of the three men he counted as

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friends. Soon the streets were far behind and he sped east along the radial road, and through the green belt surrounding the city. At an intersection he turned off and his lean, high-boned face slipped momentarily into a wry grin. This was not the shortest way—but it took him by the *Project 13* site, and his gaze sought ahead.

Sun shone on the upper part of the long vessel; the lower half was in shadow. She stood squarely upon her stern fins, from which radiated the railway lines along which equipment was brought. Four trucks and a locomotive rolled slowly from sight behind the ship's base, and Nick slowed involuntarily. The vessel's sheer mightiness was beautiful, he thought. There was arrogance in the way she pointed like a threatening spear at the evening sky. She showed men sought new worlds among the stars.

The sun was going from the hills beyond the city, and Nick turned into a second-class road, wondering about Alf Somers, his expression bleak. They had grown from boys together. Alf would never play the traitor, Nick thought. That was not his way. But no other explanation fitted, yet.

The saloon wound down behind the hills and Nick looked across the valley for the little white and red house where Alf lived. Alf had been wholly a friend, Nick thought as he drove rapidly. Even when both had wanted to marry Niora there had been no misunderstanding between them. He tried to decide how to introduce what troubled him. "Alf," he could say, "only you and I have ever seen or used the completed astrocompass of the *Project 13* ship. And I haven't talked—" It would not be easy to say.

He parked at the end of the gravel drive before the square white and red house and rang the bell. "We're honest men, Alf," he would say. "Let's talk this over quietly. There's an explanation, and I want to believe it—"

There was no reply; he rang again, puzzled. He had phoned through about ten minutes before leaving—that would be about an hour and a quarter before, he calculated. Alf had answered, his voice not sounding wholly natural, and Nick tried to recall their exact words. "I'd like to call—to talk something over, Alf." Alf had said: "Not to-night, I'm working," then hung up. That itself had been odd and not like Alf, Nick reflected as he walked round the house. He had wanted to say some things were too important to wait.

The brick building Alf called his workshop in obvious under-statement was at the end of the garden away from the road. No lights shone from its frosted windows. Nick tried the door, found it locked, and after hesitating turned the small steel dial set above the knob. "I'm half deaf when working," Alf had once said, and told him the combination. "Come in any time you like. I fixed this lock after leaving my keys in town one day."

The workshop, three-roomed, high and airy, was empty. Machine tools stood silent, and in the second room electronic instruments filled the shelves and littered a long bench. Nick crossed it, feet soundless on the insulated floor, and pushed open the door into what Alf called the reference room.

Chairs stood round the central table, littered with books from the shelves lining the walls. A strange sense of something wrong crept over Nick as a sixth sense whispered of danger of an odd, unknown kind. Walking stiffly, eyes alert, he moved to the table. Behind it lay a man in a blue overall with red hair brushed back, and quite still. Nick went round quickly and knelt by the body. Alf Somers did not move. His light blue eyes gazed up unseeing and an inexplicable expression seemed locked for ever on his

face. His heart did not beat.

Nick rose and went to the phone, but he halted without touching it. Better not, he decided. There might be prints.

He went quickly back through the workshops and locked the door, wondering how this tied up with leakage from the project site. He had started the car and was backing to turn when the house door opened and a man in a blue overall came down the step to him. Nick found himself gazing up into light blue eyes in a mobile face topped by red hair, and his brain oscillated like a plucked spring: Alf Somers was back there in the reference room, motionless and cold. Yet, against all the dictates of sanity, Alf Somers was now looking in on him through the saloon window, frowning.

"Thought I told you not to come, Nick. I was busy," he said.

Nick met the blue eyes and felt the unease that had first caught his nerves in the reference room return intensely. Every wrinkle, every shade of hair and eye were Alf's. The voice was his; so was the hand on the open window. And yet Nick *knew* he had made no mistake. Alf Somers lay behind the table . . .

The eyes seemed to change hue and Nick knew his hesitation was noted. The hand—Alf's, yet not Alf's—reached for the saloon door handle.

Nick let in the clutch jerkily . . . Only when he had negotiated the curving drive and his tyres thrummed the main road did his panic subside and his colour begin to return. His hastened breathing subsided; he lit a cigarette with trembling fingers, slowing the saloon to a safe speed. When he had reached the intersection to the green belt his full self-control had returned. He shuddered once, recalling the eyes that had looked into his. That second man who had come from the house was not Alf. Beyond that paradox Nick could not go.

Judge Henson leaned back heavily in his wide chair and puffed cigar smoke at the ceiling. Through it his gaze returned keenly to Nick.

"So you reported the death from a call-box, then came right here?"

Nick nodded. Judge Henson was the second of the three men he counted as truly friend—and Niora's father. Sixty, shrewd, he could be relied upon.

"Yes. You're on the way back—and I wanted to talk. There were things I couldn't leave unsaid—"

"So I've gathered," Judge Henson commented drily from behind the haze. "You're sure Alfred Somers was dead?"

"Absolutely." Nick knew the judge's tone only concealed his intense, critical interest. "Men don't look like *that* when they're alive."

Judge Henson nodded quietly to himself so that the swivel chair behind the desk creaked. The desk lamp left his face in shadow. "What did the police think?" he asked abruptly.

"They're sending an ambulance and surgeon immediately, and asked me to go back."

"Yet you did not. That could look suspicious."

The odd timbre of the words arrested Nick. A shock radiated down his spine and his breathing momentarily halted. The voice suddenly seemed only an imitation of Judge Henson's—an indefinable something had been lost. It had been like that when the second Alf Somers had spoken through the saloon window, and the tiny, inexplicable oddness had made him engage the clutch with a jerk. Now his hands grew tight on the chair arms and his

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muscles tensed. He wished the judge was not in shadows, and the room not so hazed with cigar smoke drifting in the brilliant disc of light cast on the desk.

"Suspicious?" Nick murmured, and congratulated himself that his voice betrayed nothing.

"The person who finds the body must always be suspect." The other drew on his cigar and exhaled smoke-rings towards the ceiling. Nick watched, fascinated. He had often seen Judge Henson do exactly that; yet this was different. Confused, he thought the other seemed no longer to be the man he had known, and was somehow dangerous, even as he smiled in the dimness, his round cheeks rising and his eyes on Nick. "I went to see Alfred and apparently left only an hour or so before you called. He was alive and well."

The statement held no accusation, but Nick felt his nerves tighten and he got up. His host swivelled round in his chair and came round the desk heavily, still in semi-shadow.

"You were—at Alf's?" Nick asked, his throat contracted.

"Certainly. He wanted me to check some legal papers."

That could be, Nick thought. Yet why did some intuitive sense scream that here was danger he did not understand; that the other, standing with one hand on the desk watching him, was not Niora's father, and was not deceived . . .

"I see." Nick made his voice casual. He felt that an acute intelligence was deciding what should be done, and preparing to act. "I mentioned to the police I'd be coming here, so perhaps I'd better hurry."

He wondered if the lie would pass. The thickly lidded eyes did not waver; the sensation of sharp personal danger grew, but to the face came a smile which could have been Henson's, and reserved for an admired son-in-law.

"Very well, Nick." He indicated the door ponderously. "I'll let you out."

Nick drove with one hand, mopping his face. The perspiration was cold and he knew that his forehead and cheeks were white. Two friends had become—strangers. But so subtle was the change an acquaintance would never know. Alf Somers was a solitary, quiet man, and lived alone. Judge Henson had retired two years before; his wife was dead; Niora was his only daughter, and he rarely kept company. The choice had been good, Nick thought. The two had few close friends to notice . . . He frowned to himself. What did he mean—the choice had been good?

Orange globes ahead marked the green belt. Two searchlights illuminated the *Project 13* vessel, topped by red lights as an aircraft warning. On impulse Nick turned in through the main gate, showed his pass, and stopped outside the long offices. His *third* friend would be here . . .

He went into the outer office. A girl was drinking coffee and yawning behind the reception desk.

"Sam Cordy here?" he asked.

She blinked herself awake and smiled. "Yes, Mr. Riordan. In the outside bay."

"Thanks."

He let himself out and went across to buildings opposite. Trucks rolled past; men came and went, and in the machine shops tools whined. Nick

felt his nerves tightening again as he approached the bay where Sam would be. Alf Somers had been the first; old Judge Henson his second friend . . . With a shock he realised Sam, too, did not love society. He was unmarried, and almost lived on the site, immersed wholeheartedly in the project.

A man was coming towards him among the piles of stores and crated and labelled equipment, and Nick halted. This was Sam. The eyes, twinkling and with tiny wrinkles; the slightly humorous uptilt to the corners of the mouth; the good-humoured face, a trifle round and boyish for a man of forty—all *were* Sam, and Nick felt as if a ponderous load had been removed from his shoulders.

"'Low, Nick." Sam slapped his back. "Come to see nobody's stolen our little rocket?"

Nick smiled faintly; Sam's jokes were always deplorably weak. They went out into the night air, away from the voices and activity in the bay, and Nick looked up. Almost overhead Ursa Major shone brightly; north, just visible, was the Cassiopeia group, and west, rising above the outline of *Project 13*, the Lyra and Hercules constellations.

"Have you ever felt how *big* the cosmos is, Nick?" Sam murmured. "That's where *we're* going. To the stars. Man is a wonderful thing, supreme, always conquering—"

"Time was when the giant saurians thought that—if they thought." Nick wondered how to begin. "When a life-form expands out of its own environment it must expect to come into conflict with things perhaps its superiors."

Sam Cordy seemed to be pondering. A light from the building threw their shadows long across the concrete. "Meaning what?" he asked at last.

"That the cosmos is big, as you say. That *Project 13* constitutes a threat to everything out there." Nick indicated the heavens. "It will give man the power to impose himself on other worlds. That other worlds may not care to be imposed upon is a point we seldom consider. Mars and Venus are like Earth—pebbles in the same puddle. Out there may be planets and worlds quite different. *Project 13* is a stepping-stone to those worlds. Time was when mankind was the greatest thing men knew; when he could build his stepping-stones how and when he wished. But I've often wondered whether that will always be so. Why should *man* be top-dog, in all *that*?" He expressively indicated the sky from horizon to horizon.

Sam Cordy grinned in the light of a passing lorry. "Romancer," he said. "Dreamer. How about a drink?"

They drank in the tiny bar at the end of the office buildings. When Nick left, he knew he had mentioned not one of the things which had brought him to see Sam. It had been too difficult to begin. Could he be certain he had not made a mistake? It seemed impossible to say. He got into the saloon, frowning.

Niora was waiting and from her face he knew that the police had phoned. "They're annoyed, Nick," she said.

He hung up his hat, avoiding her clear, golden eyes. Annoyed, he thought. That meant they had found no body, either in the reference room or elsewhere. Quite likely Alf—the second Alf—had been waiting for them when they called.

"It was a silly mistake, dear." She had followed him into the living-room,

her low voice puzzled. "They expect you to make a full statement first thing to-morrow."

Nick felt she needed some apparently logical explanation. He pulled a face. "Guess it does look silly, Niora. I suppose Alf was laid out with some kind of attack and I panicked."

He hoped she believed what he knew was a lie: Alf had been dead. Dead, with eyes glazed, heart still, and breathing halted for ever.

He went to the window and looked out over the glowing city, not wanting to talk, or add further excuses. To talk of what he had seen would bring in Niora's father, and he preferred she should not know that there, too, something he could not pretend to understand had happened.

A man was loitering in the street below. He looked up, counting the lighted windows as if to find one he knew, and an abrupt chill ran through Nick. He tensed, his gaze turned down to follow the man, now going on slowly. He had been big, with a dark hat and slightly rolling step Nick would always remember.

"What is it, Nick?"

He felt Niora's hand on his arm, and turned away. No use to say that her father seemed to be watching below, he decided.

"It's nothing." He saw that his explanation about Alf had convinced her and he withdrew from the window, not wanting her to see—whatever it was that watched below. "I'll be working late to-night. There are points I need to check."

He went into his study and locked the communicating door on the inside. The watcher outside could mean only one thing. *He was now on the list of the hunted.* To be with Niora endangered her, and her talking hindered thought.

He got a drink from his cupboard and examined the room. The window was fastened, and there was no balcony or ledge outside. One door went into their living-room; the other into the corridor common to all the suites, and both were locked. He put out the light and stood near the window. After a long time the figure came back, looked up, crossed the road, and disappeared below, going towards the entrance to the flats. Nick felt the hair on his neck crisp. Niora was playing the radio; music floated through into the study, and an abrupt announcement from a music-hall show, as she tuned in. He considered phoning the police, but decided they could not help him. What could he say? That Judge Henson, Niora's father and his lifelong friend, intended to kill him—was not really Judge Henson at all, any longer? It would not pass.

A soft knock brushed the panels of the outer door. Nick started, crossed and dropped a hand on the knob.

"Who is it?" His palms were moist.

"Judge Henson."

The words were breathed as if not to disturb Niora. Nick hesitated, then snapped on the light and unlocked the door. The newcomer pushed himself silently in, walking heavily and looking at Nick under thick lids.

"I admire your courage, Riordan," he said. "But not your wisdom."

Nick locked the door and put the key in his pocket. Niora had turned the radio a little louder, and he was glad.

"Why my courage, Judge?" he asked, and sat down. There was no

other name he could use.

"Because you know I am not Judge Henson."

The other lowered himself into the second chair and leaned back heavily. He took out a cigar and began to cut the end. Nick felt admiration, and used it to hide the fear he could not dispel.

"You do it—very well," he murmured.

The other nodded, dropping one eyelid in a mannerism which had been Henson's. "When big things are at stake the agents chosen are naturally—very competent, Riordan," he said drily. "That is why I do not admire your wisdom. You should not have admitted me."

"Perhaps I prefer to get things over; perhaps you under-estimate me."

"The former I admit could be so. The latter, I doubt. Reliable agents do not under-estimate an enemy." He exhaled smoke at the ceiling, fattening his round cheeks. Nick switched on the overhead light and watched him keenly.

"I had not imagined *Project 13* was in danger from anyone on Earth," he said. "We are united. It will benefit all, causing danger or loss to no one. I can't think why anybody on Earth should wish to sabotage it . . ."

"You follow developments quickly." A smile was on the round face, but it lacked the essential quality which could have made it kindly. "You reason well. Nor can I think of any reason why anyone on Earth should wish to sabotage it, as you say."

Nick experienced a shock, though he knew that it had been this thought which had been creeping uncalled into his mind.

"You are—not of this Earth?" he breathed.

"Obviously."

They looked at each other through the thin blue smoke, and Nick knew the other was more than human, if judged by standards he knew. Here was no mere disguise—the newcomer was a *duplicate* of Henson, and so perfect was that duplication it was unlikely anyone except himself and Niora would ever notice the difference. A new thought struck him coldly.

"What of Judge Henson?"

A steady hand deposited ash carefully in a tray. "His disposal was regrettable, but necessary. Individuals cannot be allowed to stand between us and our aim."

The eyes, cold as blue ice, settled on Nick. He felt that behind them was an intellect of extreme potential, whose reasoning processes were advanced beyond those of Earthmen, so that the unexpected was likely, bringing dangerous developments in quite unanticipated ways. The hand crushed out the cigar.

"Earth has reached a little too far towards the stars."

He got up heavily, his eyes not leaving Nick. Nick's flesh crept; he grated back his chair, remembering how Alf Somers had lain. There was a moment's silence in the radio programme and he hoped his visitor would not speak. Niora was safe only so long as she did not know. Those who knew had to be eliminated. Music began again and the heavy form advanced.

"We do not wish to complicate matters by unnecessary deaths, Riordan."

Nick caught up his chair by its back and struck. It rebounded off an upraised forearm and the second arm lapped round his neck. He felt himself

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borne over backwards, and the chair was wrenched from his fingers. Two round eyes no longer like Henson's stared down into his, and the weight of the heavy body settled like a sack of grain on his chest. He wriggled violently, and his fingers closed round the neck overhanging him.

At the touch a nervous shock ran down through him. The neck was not like his own, but took on a feeling of unyielding toughness with which he knew it useless to grapple. The muscles were strong and resistant, so that his grip seemed puny and helpless. He tore at the imprisoning arms. They, too, were so strong they felt like moulded steel, and one hand closed round his throat, squeezing, while the other poised a shining instrument over his one arm. The face began to lose its resemblance to Judge Henson, as if the imitative deception could not be maintained. The cheeks grew lean, the eyes calculating, and the mouth lost its fullness.

Nick kicked, freed a hand, and got one foot up and on the waistcoat. Using all his strength he flung the body up and away, and scrambled back, jumping to his feet, panting.

The radio had stopped. Niora's voice came through the door: "Is that you, Nick?"

Nick saw that his door-key was in the other's muscular hands. With an odd rolling gait he reached the door, opened it quickly, and disappeared down the corridor. Nick went to the window, rubbing his throat . . .

Judge Henson came out of the entrance to the block, and disappeared briskly down the street.

"Anything the matter, Nick?"

He realised that Niora was rapping loudly on the door. He controlled his breathing, making his voice level—

"Nothing, dear. I was only moving the furniture."

"Silly time to do it."

The radio began again. Nick locked the door and sat down, trembling from reaction. So that was the manner of being they were up against, he thought. His visitor had certainly been higher on the evolutionary scale than himself. Had been physically superior, adaptive, intelligent, and could have ended the struggle effectively had he wished. He had gone away so that Niora should not know, not because he was beaten.

Nick recalled his words to Sam Cordy, and shivered as he poured himself a stiff drink.

He went out early, agreed he had been hasty in assuming his friend dead, made his statement and signed it. He learned that Somers had said he had been unwell. *Bluff*, Nick thought as he went into the street. *They* did not want the police to make troublesome investigations, preferring to play the game their own way. The fewer who suspected, the better: it would be fewer to eliminate. Nick had thought of that angle all night, and an old .208, relic of a war in which his father had served, rested heavily in his pocket. The elimination of undesirable elements could work both ways, he decided.

The blonde co-ordination clerk told him Alf Somers had come early and was in the astrogation cabin.

"Sam Cordy here?" he asked.

She looked at a card file and shook her head. "No, Mr. Riordan; he won't be in until noon."

He thanked her and got on a truck loaded with stores.

Project 13 was a high, silvery pillar pointing at grey morning skies. He left the truck at its base and entered the lift-cage, which whirled slowly up taut cables to the circular entrance lock. He paused on the narrow platform, looking down at the vehicles below and at the lines which radiated to the distant buildings; then, thin-lipped, he went into the vessel's interior.

It was a miracle of craftsmanship, he thought, as he rode up in the central lift. Engines filled nearly one-third of the ship's bulk, and stores a second third. The remainder housed living quarters and apparatus—mostly the latter. *Project 13* was a self-contained laboratory, equipped to locate and examine the planets which circled distant suns. Once out there in the mighty vastness of space she would have to be self-supporting, and her designers intended that she should make a round trip through the heavens, with reserve power for several planetary landings.

The new Alf Somers was sitting on a mushroom stool before an instrument panel, and got up as he entered.

"How do, Nick?" The mobile face grinned.

Nick entered stiffly and saw that a wireman was working on cables under a panel near the door.

"You're here early, Alf," he said, his face bleak as he eyed the other across the six feet of free floor space.

The light blue eyes mocked him. "Another mistake like last night, Nick, and you'll find yourself sent down for psychopathical adjustment."

True, thought Nick. And the words were a threat: the alien knew who held the superior position. Nick had no proof—if he made an accusation it would appear mere insanity. He smiled, his limbs like ice and his grip on the old .208 in his pocket so hard it hurt.

"I should scarcely make the same mistake twice," he murmured.

The wireman came from under the panel, gave them a passing glance, and went out. Nick closed the door and stood with his back to it. His expression changed to hate; his eyes snapped.

"What did you do with Alf?"

The expression on the mobile face was characteristic still. The red hair was brushed back exactly as Alf would have done it. Nick reminded himself of what he had seen in the reference room, almost imagining that he had dreamed up the whole thing. But the other shrugged—

"Need you know what we did with him?"

"Perhaps it doesn't matter." Nick was glad pretence had ceased. "Remember I *know*. Alf didn't."

"What makes you think he didn't?"

Nick shivered. He had told no one because they would not believe. He had supposed his friend had not known. It was unnerving to realise that Alf might have suspected something, and kept it to himself for that same reason. The thought chilled and only the hard feel of the .208 in his pocket quietened his panic.

"I could kill you," he said thinly.

"You could try."

"Then why aren't you afraid?"

"It should be obvious the agents of a whole galaxy are not going to allow their lives to depend upon such a slender chance—" The other got off

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the stool. "Our preparations were in no way incomplete."

Nick's finger squeezed the trigger; once, twice, and a third time. The weapon kicked. Three holes appeared in the breast of the blue overall and three bullets shattered apparatus behind. The face so like Alf's only twitched, and Nick's grip on his weapon relaxed.

"Do not always evaluate more advanced life forms by your own poor biological standards." There was reproach in the words and tone.

Nick jumped back through the door and ran; he trembled as he rode down in the lift, and knew he was white as he reached the circular lock and took the external cage to ground level. There, he gained full control of himself and went on one of the trucks to the office buildings. In the co-ordination office the girl stopped him.

"The Chairman of the Board will want to speak to you, Mr. Riordan."

"Why?" he snapped.

"Mr. Somers has reported that while showing him a souvenir in the astrostation cabin you damaged some of the instruments."

She looked at him queerly, and Nick shrugged. The phone call from *Project 13* had apparently preceded him by several minutes.

"Quite an accident," he said.

He saw that he would have to be doubly careful; things like this, after reporting Somers dead, gave a bad impression. He went on into a call-booth and dialled Sam Cordy's number. After a long interval Sam's voice came over the line.

"Listen," Nick pleaded. "I want to talk. Can I come round?"

Sam seemed to be considering. "I'm on at noon, Nick," he said at last. "It's ten-thirty now."

"That gives us an hour!"

"Not so fast! I've got a journey out of town first. I don't think I can make it."

Nick felt sweat on his palms. "Sam, this is important!"

"So is my trip, Nick. Alf asked me to slip down to his place to bring up some charts he left there last night."

Nick found himself staring at a dead phone, and he replaced it automatically. Sam's statement might mean exactly what it said. Again, it might not . . .

Nick came out from the Board meeting with his ears red. It had been in session when his action was reported and he had hurriedly been added to the agenda. The Chairman had been stern and fully aware of his enormous responsibility.

"We feel you are aware of the vessel's importance too, Riordan," he concluded. "For the first time men will travel more than mere planetary distances. You realise no thoughtlessness must be allowed to jeopardise this vast undertaking?"

"Yes, sir."

"Very well. We hope nothing further of this nature will arise."

Nick had left under the eagle scrutiny of the twenty directors. By the office clock he saw that he had been delayed an hour, and the clerk at the entrance desk stopped him.

"Mr. Cordy tried to phone you, Mr. Riordan. Said it was urgent. I said you were being interviewed and the Board left strict orders there be no

interruption."

Nick swore to himself. "Did he leave a message?"

"No, Mr. Riordan. He seemed anxious, and said we must realise we had to fight for survival." She looked puzzled. "I thought perhaps you would understand."

So Sam *knew*, Nick thought with excitement. He could mean only that.

"Where was the call from?" he asked quickly.

"Mr. Somers' house, sir."

"I see."

He went out, irritated that the call had to come when he was before the Board. He would have given ten years of his life to have been there to answer Sam, he decided. If he had ten years . . . He wondered exactly how much Sam knew. It was galling to have missed him; yet wonderful to know he did not stand alone any longer.

He went home and ate. When they were drinking the coffee Niora looked across the table at him, her golden eyes puzzled.

"I rang up dad this morning."

Nick felt his muscles tense. He put his cup down slowly.

"Yes?" Those who did not know were safe, he thought. Did Niora know?

"He seemed a trifle odd, Nick." She frowned. "Nothing I could really put a finger on."

"Odd?" He tested the extent of her suspicion, hoping she knew nothing.

"Yes, Nick. He was coming round this evening and I wanted to ask what time. But he says now he isn't coming."

Nick felt relief like cool water through his veins. Apparently the being who had become Judge Henson did not want Niora to suspect: those who suspected had to be eliminated, and too many eliminations might cause enquiries. The smaller the circle was, the greater were chances of success. It would not require much deduction to decide that he would never tell Niora what he knew.

"Perhaps he was busy," Nick breathed, and wondered how long the deception could continue. A time would come when the truth would out.

After the meal he rang up the project site and asked for Sam Cordy. He heard a connection put through to the co-ordination clerk.

"He's not back, Mr. Riordan," she said. "He reported urgent personal business but left no number where he might be contacted."

Nick bit his lips. "Thanks. If he appears, have him ring me."

"Certainly, Mr. Riordan."

He sat in silence, wondering whether Sam was following some line on his own. His eyes strayed to the clock. The new Alf Somers would be going off duty within the hour. That left time, Nick decided. He would go down to the little white and red house and investigate . . .

Cool evening wind came down off the blue hills. The sun was gone, and the white and red house had drawn shadows closely about itself. Nick stopped the saloon behind thick elms and looked down across the slopes at the unlit windows. No smoke rose from the chimney; nor was there movement inside or in the garden, or on the gravel drive that came out to the road. It was lonely, he thought, not moving. Time was, when men had hastened to congregate in populous cities; but Alf Somers had preferred

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solitude—and that well suited those who had come.

He got out and went down along the road and quietly into the end of the gravel drive. Abruptly he wondered at the odd stillness. The air itself seemed to have become a vacuum that conducted no sound, and when he stepped through the gate his shoes on the gravel were like steel on crackling ice. Under the beeches soft turf cushioned his feet, and he went in a long curve towards the still house.

It was silent; seemed empty. Behind the garden sloped down to a narrow strip of grass, ending in willows and a stream. He went under the willows, listening, and stopped. Below, gleaming in the water, was a pile of canisters. Looking down, he knew them to contain food. They were unopened and the manufacturer's name gleamed up golden through the water. A tiny fear crept into being on his back; he looked behind, but the garden was empty. His gaze returned to the canisters. A little way below, sodden in the water, were three loaves. He bent down to stare, and tiny fish flicked from them away into reeds.

He straightened, and knew that his face was white. The grocer who had supplied Alf Somers made his deliveries as usual—but those who had come did not need such food. Bent plants showed where the new Alf Somers had passed down from the house, carrying the unwanted food to the stream.

Chilled, Nick went slowly among the trees towards the house. He remembered what Sam Cordy had phoned so urgently. The time had come when man must again fight for survival. Man was no longer the creature best adapted and superior. Time was, when he had been that. But things had changed. And how few knew, Nick thought uneasily; so insidious was the enemy, people did not know, *nor would believe*, that an enemy had indeed come.

He halted in cover, looking across at the house. The evening sky was dark and the wind hushed. A tremor born of some indefinable but extreme unease passed through his body. The sky was dark: was deep purple—except for one point immediately over the house. A faint golden disc glowed there, radiating thin streamers that seemed to flow from it up into the heavens. Faint as a sunbeam, it floated silently, and as Nick looked through it he seemed to be looking into a tube that gave a view of the star-pricked, empty backdrop of space, and of a vessel awesomely large, circular, flattened and spinning slowly on its axis as it moved against the stars. He went cautiously nearer, scarcely breathing, and the view snapped from vision. He halted and stepped back. It reappeared. In the distance of a single pace it came and went from view and mid-way, moving his head cautiously, he found a spot where the golden disc seemed to break up into a wildly spinning toothed wheel, beyond which moved triangular segments of the saucer-shaped vessel. Only at one spot was there a clear view where by some odd chance a focus arose between his own world of three-dimensional space, and the unknown and incomprehensible time-space continuum in which the alien vessel existed. Voices sounded, growing louder, and passed as three men went along the road, cycling quickly and momentarily visible between the trees. They could see nothing, Nick decided. The golden disc was visible only from this one point.

He went cautiously towards the house, keeping from view, and reached the wall near a back window which he knew had no fastening. Alf had



taken the broken latch off two weeks before and never replaced it. He pushed it open cautiously and looked through, then vaulted inside. A faint humming came from somewhere upstairs and he crept up, listening at every step. The humming came from behind a partly-open door. With infinite caution he opened it and looked in.

A compact apparatus, lifted from its case, rested on a chair and hummed and sang softly like taut wires in the wind. A radiance rose from it towards the ceiling, where the plaster and old-fashioned beams trembled before his eyes as if seen through rippling water. Nick thought of the shimmering golden disc above the house, and his tense attention quickened. For a long time he studied the apparatus, dropping to his knees to peer closely into its intricate interior, but not touching it. When at last he rose a deep ridge stood between his brows, but his eyes shone with inner light. He had an excellent memory for technicalities and the principal circuits were engraved on his mind.

Niora Riordan frowned at the litter of equipment on the lounge table, as
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if annoyed that their room had become a workshop. Nick wiped his brow and sat back, sighing. His coat hung on the chair, and he saw that he had worked for three hours without pausing. Niora looked at the shining chassis, with its countless connections and components.

"What does it do, Nick?"

"I don't *know*, Niora. I can only guess." He switched off the table lamp. He could be wrong—and explanations would lead to knowledge dangerous to Niora herself. "It's just a copy of a unit I saw somewhere."

"Not anything to do with the project?"

He shook his head. "Such work wouldn't be done like this."

He was not sure whether she was satisfied, and knew better than to underestimate her. Niora had a habit of worrying at a problem until she found a solution; this time he hoped that she did not even suspect there was a problem.

"The vessel's really finished?" she asked.

Nick wondered whether this was a continuation of her original subject. "Project 13? Yes, except for a few finishing touches of no great importance."

"She will travel faster than light?"

"If you care to express it like that. We prefer to say that she will cease to exist in this time-space continuum. Without that, her crew would need half a lifetime to make the trip."

His gaze flickered to the apparatus he was building, which he had mentally classified in the bedroom when he had seen its original and his first puzzlement changed slowly to comprehension. Though obviously designed by a race whose technological knowledge exceeded Earth levels, it embodied no completely new technique. It was the unification of known techniques in a new and unexpected manner.

He tidied up and put the uncompleted space-continuum distorter into a large suitcase. The phone rang as he finished, and he took it up.

"Is that Sam Cordy?"

He regretted his words immediately and wondered whether he had been unwise as a level voice said: "No, Alf here."

Alf, Nick thought bitterly. Not Alf, but . . .

"Yes," he said, and saw Niora was listening. "Oh, Alf, what is it?"

"I'd like to see you."

How well it was done, Nick thought. His fingers tightened imperceptibly on the phone. "I can call any time you like, Alf." That let Niora know where he was going, without needing to say anything and so make a point of it so that she asked questions. If anything—*happened*—it might be useful for her to know.

"Right, I'll be at the site in half an hour." He hung up.

The light-blue eyes met Nick's. "So you see your continued interference cannot be permitted. It is unfortunate, but necessary."

A group of wiremen were talking by the bar; others sat at the small tables, drinking coffee and smoking. Nick felt a cold finger pass up and down his spine.

"It will be arranged in such a way as to cause no suspicion," the other said.

Nick looked at him. Behind the eyes was an expression which would never have appeared in Alf's face. Except for that he might have been with Alf.

"We have never harmed you," Nick pointed out evenly.

The other emptied his glass smoothly. "You would do so. No, not purposely, but because it is your nature. A century ago you reached adjacent planets and civilised them. Very well, they benefited in some ways. But we are not anxious to be victims of the same process. You merely want to travel farther and faster; build higher and bigger. The only time you approach contentment is when you are striving to attain some ideal—which is in itself a form of discontent." He filled his glass, pushed it to one side, and leaned forwards, pointing a finger at Nick. "We are content, wishing only to remain as we are. *Project 13* gives you the means to reach our worlds. We do not wish to be colonised. We do not want a senseless, useless trade as you scratch our planets for the metals you term valuable, or pick our brains for processes you can apply to your own industries."

Nick felt his spirits sinking. "I cannot believe *Project 13* is such a threat to you."

"It is. We have ways of knowing."

Nick did not argue. Everything he had so far seen indicated the other was a member of a race technically far advanced beyond Earth level. He did not doubt that they had—ways of knowing.

"As your superiors, we are not prepared to let you undermine our stable society," the other said quietly, his gaze now upon the table. "Man, represented by you and your fellows, is not high in the evolutionary scale. We have superior intellects, and superior bodies, both obtained through selective genetical control, with some surgical intervention. Your bodies depend upon each individual part. We have arranged that ours do not."

"I could disclose what you are!" Nick interrupted.

The blue eyes passed over the tables and bar. "Try, if you wish."

Nick knew his statement had been bluff. No one would believe him; no one would even bother to examine the man so apparently Alf Somers.

"No ordinary examination would reveal that we are different." The other seemed to have followed his thoughts. "You would find it very difficult to convince anyone."

"So you will smash *Project 13*?" Nick said thinly.

"Yes, but not so obviously as you suggest. Preliminary tests will make it apparent that the vessel is unworkable, and that the design is not practicable."

Nick nodded slowly. That was the way they would do it. "Why tell me all this?" he asked.

"Because the fewer who suspect our presence, the fewer unnecessary deaths will arise." He leaned forwards and his gaze locked with Nick's. "Have you told anyone of your suspicions? Acquaintances, or your wife?"

The eyes held latent power and Nick knew that concealment would have been impossible. No one could have passed this scrutiny. Luckily, he did not need to lie—

"I've told no one," he said.

"Good." Nick saw how confident of his ability to remain undecieved the other had been. "That's all, Riordan. Goodbye."

Nick rose stiffly, wondering what had been planned. It would be something quite unexpected, and likely to cause the minimum amount of suspicion. The beings from the circular ship did not want curiosity aroused.

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He went through the crowd to the door, suddenly awake to the danger which had always surrounded him, but which now had a different meaning. Death was a thing that happened to *other* folk, it had seemed, until now . . . Lorries were backing into a yard adjoining the offices and he waited until they had gone, his hair prickling and his hands damp in his pockets. A track-rod could break, or a driver accelerate carelessly . . .

He gained the door of his own small private office, and looked back across the concrete square. The second Alf Somers was watching him from outside the refreshment room. Nick shivered involuntarily, entered his office and locked the door. He seated himself, his plan crystallising, and reached for the control switch of his tape-recorder. Sam Cordy suspected, he thought. He could put everything he knew on the tape and have it passed on to Sam . . .

His finger stopped an inch from the switch—insulation *could* break down; shorts *could* arise. It would not be the first time a man had been electrocuted like that.

He depressed the switch with a rubber eraser and the recorder began to run. He relaxed imperceptibly and began to talk into the desk mike, marshalling his facts. Those who had come intended to make *Project 13* look a failure. The new Alf Somers and Judge Henson were spies of a kind never fought before . . .

When he had finished he saw that almost an hour had gone. He ran back the tape on to an empty spool, placed it in a large envelope, and tied it. The less important it appeared, the better, he decided, and wrote on it: "For Sam Cordy," and, in brackets: "Remember our party, Sam?" That should do, he thought. But Sam would be curious, and play the tape.

The phone rang. He picked it up and found the site gatekeeper had been put through.

"A man here keeps saying he must see you, sir."

Nick frowned. "Who is he?"

"A Mr. Sanedrin."

Nick's frown deepened. The name was familiar, yet one he did not completely recognise.

"Shall I send him away, sir?" The gatekeeper sounded as if he had endured a long and tiring argument. "Or will you see him?"

Nick considered quickly. Every step now seemed full of imminent personal danger. "Have him brought in," he decided at last. "Take the usual precautionary measures, of course."

He rang off and settled back to wait. The site was ringed by an electrified fence, as securely guarded as when top-secret military preparations were conducted in time of war. Sanedrin would be brought in under open guard. He repeated the name, and his brows suddenly rose. Niora's radio programme had included Sanedrin the Seer! That was why the name was familiar.

Knocking vibrated the door, and he admitted a little man, dark and quick, who bowed as if to an audience. But a keen look of inner tension was in the black eyes, which flickered round the office and returned to Nick.

"I intrude, Mr. Riordan." He made an expressive gesture, hunching up his shoulders and raising his palms. "But I presume you would consider the intrusion justified."

Nick examined him as he closed the door. "I've heard you on the radio," he said. "Seen you on televue, too, now I think of it."

Long, delicately white fingers flitted up to a silk bow-tie and Sanedrin's head bobbed as if he demonstrated some trick to an admiring audience. He produced a card as from nowhere, and Nick looked down at it.

Sanedrin looked momentarily uncomfortable. "One must live, Mr. Riordan. There are times when I have—felt things strongly. I employ trickery: I admit it to you. But there were times when I did not debase my powers to obtain definite results. Programme managers expect such results."

Nick felt his interest quicken. He saw that the newcomer's manner, automatic in its showmanship, only half-concealed a grave inner tension. He nodded encouragingly.

"I had a dream, Mr. Riordan, a dream." Recalling it caused pain to flicker across the thin, dark face. "It resembled those I experienced before I had debased my art for money. There was a vision of the long, east road through the green belt; of a saloon, and a passenger vehicle, both crushed like paper. Of faces I knew—one I had seen in newscasts about this great vessel." He waved towards the project rocket, just visible through the window. "Your face, Mr. Riordan. The feeling was so strong I could not quell it. I had to tell you . . ."

He ended lamely and Nick saw how difficult it had been for him to make such a point of a thing most men would laugh into silence. Instinctively he pressed the other's shoulder.

"You've done a great service by telling me that—perhaps a greater service than you'll ever know."

When he was alone Nick sat pondering on the desk. He had planned to take the east road that evening, ending up at the little white and red house. There could be an accident . . . His saloon might be crushed like an egg-shell by one of the fast articulated passenger vehicles which swept along the arterial roads . . . It seemed possible that the—*newcomers* to Earth could engineer just such an accident.

The suite was locked and Nick let himself in. A note was propped on the table and he opened it with sudden apprehension.

Gone round to see Daddy as you said you might be late.—Niora.

The paper trembled in Nick's fingers and he folded it automatically. This, he thought, he had dreaded yet expected. He gnawed a lip, then dialled Judge Henson's number. He rang twice, with no result, and hung up. He frowned, then asked the project site co-ordinating office for Sam Cordy. Sam had not been in.

Frustrated, he went down to the sub-level garage. One thing seemed clear. Everything centred on Alf's house, and that was where he would go. He had got into the saloon before he remembered his visitor at the office and his warning. Both had been crowded from his mind by his fear for Niora.

He swore to himself, slammed the door, and went up to street level. Articulated six-wheeled buses, roomy and silent, were on their evening routes through the green belt. He got a ticket from the slot-machine at a halt barrier. A vehicle which would take him by Alf's was stopping, but he froze. Sanedrin had not said he was in the *saloon*! The same accident could arise if he was a passenger in the articulated bus, and with fatal results.

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He watched it leave, and turned back to the flat. Suddenly it seemed dangerous to be out at all. Possibly *they* had engineered the whole thing, beginning the plan with a call supposedly from Judge Henson, to take Niora away. It was not difficult to deduce that he would then phone Henson's number, get no reply, and decide to go to the white and red house where everything had begun.

He paced the flat in indecision, twice rang Henson's number, and twice asked for Sam Cordy, all without result. He wondered whether he should risk the drive out to Alf's. The clock chimed ten and he switched on the newscast, wondering if there *had* been an accident . . .

There had. A saloon had crashed into an articulated bus travelling east, and seven passengers had been killed on its near side as it mounted the path, sheared off two trees, and toppled down the embankment into a park. "Among the killed was the well-known universal network artist Sanedrin the Seer," the announcer said. "His death will give a feeling of personal loss to many of our listeners."

Nick struck off the radio and stared from the window, not seeing the city lights, his face suddenly like weathered brown stone. He always sat on the near side. Blue, gold, red and green were reflected on his concave cheeks and in his eyes as an advertiser's legend spelled itself along the building opposite. Immobile with thought, he stood outlined by the brilliance of the city below. All this, he thought, made by man for man, was in danger. And the eager people did not *know*. His gaze turned sideways. The beacon lights still burned on the point of *Project 13*. For a moment he had almost expected they might have been gone. He wondered whether he should go to Judge Henson's. *That* journey could be taken on foot, and should be safe.

He went down and through busy streets, where folk always hurried, but only to entertainment, at this hour. Every building blazed with lights; neons of every natural colour, plus some devised by man, zig-zagged their abrupt messages, then disappeared into momentary blackness. Cartoon figures bowed and gesticulated, comic-strips flashed through brief-lived sequences, and behind all was the sound of many vehicles and the voices of many people. Many laughed; most were gay. Only at Nick's heels did danger seem to walk and he often looked back quickly.

He went down side streets between high buildings, and came out upon a boulevard with fountains playing along its centre. He wondered whether Sam Cordy had received the tape. Probably. And Sam had suspected something himself, Nick felt sure. The knowledge that Sam knew, and would help, comforted him.

Judge Henson's house was beyond a second intersection. He crossed under the trees and slowed his step, eyes and ears alert. A man with a package under one arm was standing motionless outside Judge Henson's gate, his back to Nick. Nick felt excitement and relief. The little package *might* have been anything: but its size and shape suggested recorder tape. And the man, characteristically without a hat, was unmistakable. Nick's step quickened, a sudden fear coming into his mind. His hand fell upon the waiting man's arm—

"Sam! You haven't told Judge Henson what was on the tape?"

The man jerked round; street lights shone on his bare, sandy head, and

rounded, boyish face. A smile twitched the corners of his mouth.

"Nick! This is a lucky chance. What brings you here?"

Nick froze, his nails biting into his palms. His mind cried out, and his lips almost followed as hope died. Alf Somers; Judge Henson; now, outside Henson's house——

"What have you done with Sam?" he said thinly.

Brows exactly like Sam's rose quizzically. *How well you do it*, Nick thought bitterly. The other transferred the package to a wide pocket.

"That's a question we prefer not to answer," he said.

Nick was glad there was no attempt to maintain the deception. He knew that perhaps everyone except himself would believe this man to be Sam Cordy, and only a sixth sense whispered he was *not*.

"Are there—scores of you?" he asked, his lips tight.

The man who looked like Sam Cordy smiled. "That, again, is a question we prefer not to answer."

Nick felt baffled; his gaze turned to the house, but no lights illuminated the windows. His dismay became anger.

"What have you done with Niora? She came here."

Shoulders rose and fell but the second Sam Cordy did not speak. Nick's blood ran hot in fury, then cold at the look in the other's eyes.

"You're—*devils*," he said.

"The desire to survive is a hard taskmaster. Other things become secondary to it. I thought the matter very clearly put." He tapped his pocket where the package rested.

A light suddenly came on in the hall-way above and the door was opened from inside. A large man speaking with Judge Henson's voice stood momentarily outlined; a girl came past him, adjusting her hat and exchanging farewells. Nick's heart stood still: Niora! By some miracle she had not noticed the change in her father; by the ultimate lucky chance was coming out now, unharmed—not in danger, because she did not suspect . . .

She came half-way down the steps, saw Nick, hesitated, then smiled. Her eyes turned to the second Sam Cordy and she nodded.

"Hello, Sam."

Nick, all his consciousness centred on her, felt new fear dawn in his mind. He stepped forward, looking up, his face white and abruptly aged.

"Niora——?"

"I'm coming home right now, Nick."

His fear became alive, crawling through his consciousness. Here were Niora's face and form; her voice and gestures. Yet though they were the colour, he knew the soft golden eyes looking into his were not his wife's.

"What have you done with Niora?" he whispered, agonised.

The golden eyes turned upon the man like Sam Cordy, and the latter shrugged. Both stood, not speaking, looking at him, and something in Nick snapped. He turned and ran. His steps echoed from the residential buildings, and as he ran he knew, now, what form his *accident* would take. As far as the world knew, there would still be a Nick Riordan. That would make the circle complete—Alf, the Judge, Sam, Niora, and himself. Perhaps no other human would ever know . . .

He halted at the first junction, listening, but no steps followed. They had either decided it was unnecessary to give chase, or were following silently.

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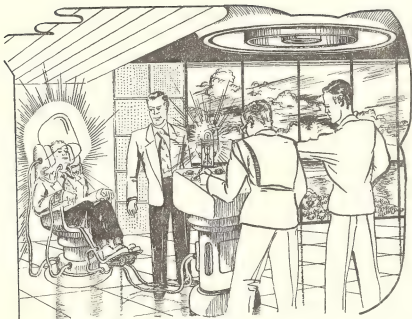
He thought of Niora, and a cold fury grew within him as he went on quickly, his face white and bleak in the street lights, not hearing the careless voices of the people in the wide street beyond the junction.

People must *know*, he thought. They could not overcome an enemy they did not realise existed. The newcomers had worked secretly, and obviously valued secrecy so much they would go to any lengths to maintain it. The greatest weapon to turn against them would be mass publicity—and there was one man alone who could use that weapon most effectively and without delay. Nick's hurrying feet turned towards the city centre. That man was Marsh Wallace, of the universal network news syndicate.

Men came and went through the offices. In three-sided cubicles columnists and feature-writers snapped into tape-machines; youths hurried by with copy, and a continuous drone of activity filled all the long rooms. Nick knew he had only been admitted because *Project 13* was always news, and because his name, like that of the others who held important positions in the project-site offices, was known. He passed through a frosted door lettered "Marsh Wallace" and quiet came as it closed behind him. From his broad circular desk a man with a wide, brown face looked up. He made a sign of recognition, drew a file towards him from a side swivel, and leaned back, staring at Nick from under his eye-shield. He indicated a chair.

"I was told you wanted an appointment, Riordan." His voice was clipped, staccato and clear above the quiet hum filtering from the outer offices.

Nick sat down. He knew his face showed the heavy strain he was enduring and the look that had been in the golden eyes so like Niora's still remained in his memory.



"You've always covered the news relating to the project," he said.

Marsh Wallace nodded, his gaze keenly appraising. "I have. No project site item is used until it has passed through my hands."

He was abrupt and impersonal and Nick wished he knew Wallace better—that would make things easier, and more certain. But their acquaintance was slight and Wallace had already looked quickly at the clock, where a red second hand turned relentlessly.

"The project is being sabotaged," Nick said quietly. "There is real danger to the ship."

He would have to choose his words carefully; any appearance of panic would only hinder him. Wallace's face was slightly down-turned, his eyes hidden behind the eye-shield as he leafed the pages of the file.

"There have been other reports of that, in the past," he said without modulation to reveal his thoughts. "All proved unfounded—were mere suspicion or rumour."

"This is *not* rumour!"

Wallace nodded, not looking up. "So you say. I should need proof before I passed a story. Universal network news does not favour sensationalism. No story goes from this office without my permission, and I pass no story until I am satisfied it is based on truth."

He glanced up quickly and Nick found himself meeting dark, cool eyes. He had heard that Wallace was a man of inhuman efficiency, and knew that without his aid the story he wished to tell would lie unpublished. If Wallace decided against it, no one would ever know . . .

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The cool, dark eyes strayed again to the clock with momentary impatience. "Tell me the facts as you believe them."

Nick hesitated, searching for words and realising just how unconvincing his story could appear. Wallace must have listened to many fake sensation-alists in his long, busy life; must indeed have shown many protesting to the door.

Wallace leaned back as Nick finished. "An odd story, Riordan."

Nick tried to read the expression in the cool, dark eyes, and failed.

"It's true!"

"So you have said." Wallace consulted the file silently and his gaze flicked up. "I see you had reported the death of a co-worker, Alfred Somers, but that he was later found well."

"I've explained that!" Nick felt his spirits sink again. "The person everyone believes to be Alf is really one of them!"

"You say the similarity is exact?"

"Yes."

"Then you can offer no proof?"

Nick was silent. There was no proof, he thought. He *knew*. That was all. Just knowing was not enough for Wallace.

"It might be possible for you to see the alien vessel above Alf's house," he decided at last.

Wallace appeared to consider. "You can guarantee I should see it?" he asked finally.

Nick hesitated. "No."

"Then I can hardly come. I want the promise of definite proof—*proof*." He closed the file with a snap. "Proof, not rumour. Fact, not possibility. If I ran a story like this and it was faked, I should be out. Out. Yes, even I. The universal network does not encourage mistakes."

Nick saw that his interview was closed. He leaned over the desk, his eyes agonised and his face set.

"You ask for *proof* while Earth is jeopardised!"

Marsh Wallace pressed a stud on his desk and nodded at the door, as it opened to disclose a youth in shirtsleeves.

"Show Mr. Riordan out," he said.

Nick looked back from the door. "At least promise you'll not forget what I have said!"

Wallace was jotting something on a slip of paper. He made a tiny motion with his head, but Nick did not know whether it was in assent or curt dismissal, and he went out through the offices and into the street. The midnight sky was high and clear, and passing vehicles and people reduced to a fraction of their earlier volume. Many windows were dark; only from the great news syndicate building glared unbroken rows of lights, showing dawn would see material ready to pour through the thousand channels afforded by radio, television and the press. That news would contain no item of the threat from outside, Nick thought bitterly. Marsh Wallace would spike it, waiting for proof when none could be found.

Nick felt exhausted when he reached his rooms. Someone was moving inside, humming quietly in a voice which sounded like Niora's. His face thin and his lips compressed, he let himself into the study and locked the

door. Niora's voice did not come, calling him, and he did not speak, but dropped the couch end and lay down to rest. At last, after a long time, the voice that sounded so exactly like Niora's grew quiet and Nick strove to sleep, his mind and body demanding rest. He wondered what had happened to Niora and the others. There seemed only one possibility: they were dead. At last he slept uneasily.

He awoke after what seemed moments and heard the end of the early newscast coming from the next room. "The body has been identified as Alfred Somers, a technician at the *Project 13* site. It is reported death appears to have taken place some days ago, though Somers has been seen recently."

The radio was silenced and footsteps went into the bedroom. Nick got up. So Alf was dead, he thought, and shivered, recalling the other three people who had been substituted.

As he went down to street level he decided the police would now wish to question him again. The discovery of Alf's body altered things. He wondered whether those responsible for its disposal had made a mistake; whether there was some purpose in this development, or if it would throw suspicion on himself. The police might assume he knew more than he said, and he might be held for questioning. There could even be a case against him, he thought, if evidence turned out that way.

He stopped at the exit to the flats. Judge Henson was down the road. Nick glanced the other way quickly. The new Sam Cordy was coming from the other direction, and as if the two were aware of each other's presence despite intervening traffic and distance, Henson began to come with his characteristic rolling gait, heavy yet purposeful, towards the flats. Nick started and ran back lightly to the lift. Only when he had got out at his floor did he realise that there was no safety here. Sounds of movement came from inside his rooms, and a voice like Niora's was singing softly to itself.

The indicator showed the lift was coming up. He sprinted for the stairway, and looked down. Judge Henson was mounting rapidly, and without breathlessness, despite his weight and the stiff climb. Nick turned the other corner and began to run up the stairs. There was only one lift and one stairway, and the building stood isolated from those around. They had come for him, and would apparently succeed.

He gained the flat roof with its tiny garden from which there would be no escape. From its edge he saw that something was happening in the streets below. People hurried, or talked in groups, and traffic seemed momentarily disorganised. A confused murmur drifted up; a news delivery van had stopped at a corner and the papers were passing quickly through the crowd. Somewhere a news reproducer was trumpeting, but the words echoed across the road and were unintelligible. Nick strained his eyes down from the corner of the building. Several minutes passed, then a tiny group came from the flat, walking quickly. The new Cordy, Henson, and Niora . . .

Nick went down into the top floor corridor. The lift was at ground level and would not rise. He took the stairway, reached his rooms and found them empty. He hesitated, wondering what had happened, and switched on to the news band. "These startling revelations by Marsh Wallace were as unexpected as they were amazing." The announcer's voice seemed to hint

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at personal panic. "A report was made by two *Project 13* operatives—Nick Riordan and Sam Cordy. Cordy's written report has only come to hand immediately before this bulletin, confirming Riordan's remarkable statement, made in person to Marsh Wallace late last night. Further confirmation arises in the fact that autopsy reveals Alfred Somers met his death over thirty hours ago, while many reliable witnesses state he was seen yesterday evening on the project site."

As he listened Nick thought of the enormous vessel he had seen above Alf's house, and of the technological superiority of the beings who operated it, and a new unease replaced his momentary triumph. Anyone who *knew* was in danger: now, *everyone* knew! Many further developments would certainly centre round Alf's little white and red house!

Much traffic was on the road and three military lorries passed Nick, the soldiers in them riding expressionlessly. He wondered if chance alone took them east with him. He drove fast, not thinking of individual danger, and the green belt slid away behind. The saloon mounted the hills effortlessly, sped into the top roads, and he came out upon the far hillside. His gaze flickered immediately across the valley.

A transparent dome centred on the little white and red house and enclosed a large part of the undulated slopes around, including a section of the nearby road. Nick braked quickly to a stop at the roadside, where other vehicles had parked, and gazed down over the wooded hillsides. The dome looked like glass with a faint yellowish hue. It was absolutely spherical, and seemed to have shorn through the trees and hedges at its perimeter. Inside the house and garden stood like minute toys in a huge bubble.

A police car came up the road, an urgent, amplified voice halting traffic and turning idle sightseers back. Nick drove the saloon quickly into an unused lane and got out. With the heavy suitcase he had brought in one hand, he set off tangentially across the fields towards the dome. He had expected things to happen, but scarcely this.

The military lorries had stopped high above him on the hills and the soldiers got out, staring down across the fields and talking. An officer in a radio-car came; they saluted, then all gazed again down into the valley.

Nick went along behind a high hedge, and through trees. A faint humming, almost inaudible, came from the dome—a sound he considered very like that which had come from the space-distorter. No one was visible inside, though he could hear a man shouting far away up on the hills behind him, and he drew near to the golden wall, which stretched high above the trees. It shimmered and moved so that it was difficult for his eyes to focus upon it, and he put down his heavy case and opened it.

The apparatus he had built was a replica of that he had seen in the bedroom. He suspected what it might do, but hesitated, thinking of Niora, Sam and Alf, before depressing the switch. Very slowly a humming that chimed and blended with that of the dome came from the case. An area of the dome immediately in front of him scintillated and abruptly vanished, the jagged edges drawing back, curling and twisting. Smoke began to rise from the suitcase and Nick sprinted for the gap. An abrupt, quick thunderclap of displaced air came at his heels, and he rolled upon the grass, looking back. The suitcase was burning brightly, its contents fused from the overload, and the interrupted edge of the dome had snapped back into existence. He

got up slowly. High overhead the sky had an oddly different tint. In the centre, directly over the house and dimly seen as behind mist, floated the huge, circular vessel Nick had glimpsed once before from the garden. As he gazed at it, his ears still ringing, powerful arms fastened themselves round him, pinioning him.

Inside the house the furniture had been hastily cleared from one room and a complex chair stood centrally under a powerful light. In it was strapped a man with a wide, brown face, his head in a curved rest, his eyes closed in unconsciousness. Around him moved three figures, their true features still concealed by a fading resemblance to those they had imitated. A man who had once appeared fat and aged but whose face was taking on youthful lines, delicately manipulated the controls on the headpiece above the chair. Probes scarcely more than a molecule in diameter sank down through skull and brain. Never hurrying, and with infinite care, he proceeded, not looking up, his thickly lidded eyes keenly on his apparatus.

From his chair Nick watched, eyes sometimes on the three and sometimes on the unconscious Marsh Wallace. He had ceased trying to struggle.

"This means one of us will have to stay behind as Marsh Wallace," one of the three said.

The heavy man by the headpiece sank another probe. "You believe it will be possible to kill this disclosure of our presence?"

"Of course. Those who saw nothing will not believe in it. Even those who have seen the dome will begin to disbelieve their own senses. It can be dismissed as an illusion, an atmospheric phenomenon, or the result of some experiment being carried on in Somers' laboratory."

Nick tried once again to move, but could not. The use had not yet returned to his numbed muscles, which were frozen and useless from a drug he did not understand.

"It is unfortunate you needed to put on the continuum distorter," the big man said.

"It was necessary—we should have been over-run by police and soldiers. You think me most suited to take Wallace's position?"

"We do."

"Very well."

The second donned a headpiece joined to that above the central chair and Nick watched it being adjusted. Apparatus began to murmur and Marsh Wallace's features twitched as if in sleep. Nick closed his eyes, trying to overcome the dizziness left by the hypnotic. It had all been too quick, he thought bitterly. The concussion of returning space-distortion had scarcely echoed away before arms had locked round him and a needle slid into his arm. He wondered how long he had been unconscious; certainly he had no memory of being placed in the chair.

He opened his eyes again. There now seemed to be two Marsh Wallaces in the room: one, the real Wallace, was still unconscious in the complex chair. The second lifted off his headpiece and rose briskly.

"Universal network news will kill this story!" he stated crisply. "I'll see to it!"

The large man began to withdraw the probes which Nick assumed had drained thought patterns from the unconscious man's brain. "What do you

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plan?" he asked.

Marsh Wallace's characteristic short laugh sounded in the room. "It won't be difficult! When you're gone I shall be alone here—on the spot, and can issue an authoritative announcement that it is merely an unusual atmospheric phenomenon."

Nick shivered, and felt that his blood was stirring and his tongue less like wood in his mouth. He wondered how long it took these agents of a superior world to learn how to mould their features by conscious will.

"Why don't you—leave us alone," he whispered hoarsely.

They all looked at him and brows fully as thick and bushy as Marsh Wallace's rose expressively.

"Would *you* leave a threat from an inferior life-form unchecked?" he demanded coolly.

Nick knew that the question could receive only one answer. Time was, when men had been the superior, and he thought of the use men had made of that superiority. Mankind had made himself master by slaying or overriding every other living thing. Now that was changed—man suddenly found himself lower down on the evolutionary scale, and did not like it. It was nice to be top-dog, he thought; but easier to see the other viewpoint when one became under-dog . . .

"If you go outside the dome you'll be arrested," he protested. "You can't touch the project rocket."

The man who looked like Marsh Wallace considered him gravely. "It would be a sound plan for a second Riordan to accompany me," he said, and his eyes went to the chair where his prototype still sat, white and unmoving. "We could find another volunteer willing to stay behind—as him?"

They nodded. "Easily if necessary."

"Good. Alf Somers is officially dead. Sam Cordy can disappear. A second Nick Riordan and myself can remain here to clear things up."

Nick felt cold dismay run through him. They planned to leave a new Riordan who would speak, act and move as he did—who would be admitted into the *Project 13* site without questioning. Whose very finger-prints would undoubtedly be his, by some imitative process these beings understood and controlled! The new Riordan would speak with his lips, framing thoughts as he would express them, and no one would ever know . . .

"We must not forget Judge Henson and his daughter," the large man pointed out, swinging away the headpiece from over Wallace's head.

The new Marsh Wallace nodded. "I can see to that. A bathing accident can be reported. With strong tides bodies are easily lost, and both were frequent swimmers."

They took the inert form from the complicated chair and lifted Nick into it. He tried to struggle but his limbs were heavy and did not respond to his will, and bands were fixed round his legs and arms. His head was dragged back into the curved rest and a retaining semicircle of resilient steel drawn tightly round his forehead. A dark bandage was placed over his eyes.

"Mankind's way of dealing with opposition has often been quite ruthless," Marsh Wallace's voice pointed out. "You should feel no anger if we kill you."

There were sounds of preparation round Nick in the unseen room. A vivid fear burned in the centre of his mind, radiating outwards in a circle of apprehension.

"Can't you—leave Earth alone?" he pleaded, his voice sounding unnatural even in his own ears.

Wallace's short laugh came without humour. "Mere distance through ordinary space is no safeguard for us. Second-stage space is different—a fact you and the others working on *Project 13* have practically guessed. We don't wish to be subject to the old troubles, or exposed to the old contagion. The people of your millennium have played their part, and it has been as important to us as the ape was to man. No one can reach the high stages without ascending from the lower. Higher life-forms may supplant the lower, but they could not arise if those from which they had sprung had never existed. We have no enmity for you, just as you probably have none for the ape. Nevertheless, you would not permit savages to tear down the civilisation you have so laboriously constructed. You would realise that your worth exceeds theirs. Similarly we, with our mental and physical stamina perfected by many millennia of culture and genetical control, know ourselves to be superior to you. Therefore we must safeguard ourselves from you."

A prick made Nick's arm tingle. He tried to speak but could find nothing to say. Time was, he thought, when man had always expected to be great; time was, when men supposed the race would always go on, even though individuals were mortal. Mankind, he had always liked to think, was collectively immortal . . .

"Like other savages, you are often noble, but often irrational," the voice murmured. "Often splendid, often great; but often weak, often self-seeking . . ."

The voice receded as if to a great distance, and Nick's consciousness ceased.

For a long time in a deep, central recess of his mind the knowledge of being continued to exist, though isolated from every sense. Feeling had ceased, as had all sense of passing time. Within remained the single spark of living mind, oppressed by strange fears and inarticulate dreads and expectations as a questing came through his brain, as if his memories and thoughts were being taken as a model. A murmuring began and continued intermittently—how long, he could not tell. He did not realise that he still sat unmoving in the complex chair with its intricate apparatus low over his head. He did not know when the headpiece was slowly raised by its lifting mechanism, and a replica of himself rose a trifle stiffly from the second chair, looking down at him, and smiling with his own slightly crooked smile.

"Time still is, when a man can make sacrifices for his fellows," the replica murmured, and went out. The others went with him, talking. Then with the second Marsh Wallace at his side the new Riordan went into Alf Somers' laboratory workshop. The door closed behind them.

Nick did not feel himself being lifted from the complex chair, or carried out into a small craft that had come down from the circular ship. He did not see the military massing on the hill, or realise that they could see no

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ship or craft rising quickly to it as they looked down across the slopes. He did not feel the acceleration of the circular ship. Nor did he hear the murmur that drifted all along the hills as the golden dome suddenly ceased to exist and two figures, immediately recognisable by many of the watching thousands as Marsh Wallace and Nick Riordan, came walking out from behind the house, going up the slopes towards the high-ranking official who stepped forward, not without hesitation, to meet them.

His mind turned slowly like a sluggish wheel about an axis, and did not register the miracles of advanced technique with which the circular vessel was fitted. A thought grew, dimly at first. Somehow the race of mankind must survive. A species could not build so near the stars . . . then perish. Though individuals died, the race must continue. That alone gave purpose to living, and lifted individuals above futility.

Nick awoke slowly as if from a deep and relaxing sleep. Isolated phrases that had been incomprehensible when taken alone began to join up in his mind, developing new meaning. His level of mankind was essential, they had said, because the lower stages in any evolutionary process were essential to the attainment of the higher.

Feeling returned to his limbs, and he lifted himself slowly. He had lain upon a green couch, resilient and soft, with a pillow of similar spongy material under his head. The room was as clean and fresh as the inside of a polished plastic cube and only a faint humming showed he was in a vessel. The window was flush, apparently a transparency fused into the wall, and the light coming from the ceiling shone from no visible source. He got up and looked through the window, feeling momentarily forgotten by wonderment at what he saw.

Far below was the Earth. Midday sun made white the clouds, and shone on the towns and hills seen between them, picking out the roads like long loops of tape. Pointing up like a silver finger was *Project 13*, reflections glancing off her near side like white, living fire.

"Man is a great building animal," a smooth voice said quietly.

Nick turned from the window, startled, and wondered if the man before him had been Judge Henson. If so, the resemblance had gone, as had the dark clothing. The newcomer wore a light, sparkling garment of plastic and his face was brown, lean, and noble. The eyes were kindly yet cautious, stern yet pleasant.

"Without his building ability, man would be nothing," he added, coming to the window. "Man is what he has made himself. Other creatures are merely what they have become. That is the essential difference, and why man is the greatest, noblest and most fine of creatures."

"And *Project 13*?" Nick asked, looking far below at the silver spear.

"She will never fly. It has been arranged."

Nick sighed. He had always felt the project rocket a great attainment in every way symbolic of man's expansion. The other followed his gaze and nodded.

"One dare not leave half-understood power in a child's hands. For you, a few thousand years of progress have passed. Think, then, what men can become in the fullness of all futurity."

"There was something—odd in her drive," Nick said, suddenly understanding.

"Exactly." Keen eyes met his, then returned to the window. "In second-order space there is no time; there can be none, since no sequence of events exists there. But you will leave your own system and colonise planets near other stars—when the right moment comes. That time is not yet."

The window blinked dark. Nick looked out, but the Earth had gone. No sun shone across the heavens; no stars burned distantly above. Instead was only empty blackness, surrounding the great circular ship like a void, and lacking any distinguishing feature.

"Here, there are no incidents to run concurrently, and consequently no time," his companion pointed out as if feeling an explanation was necessary.

Voices came outside the door, and Judge Henson, with Niora holding his arm. Nick quivered as from a shock, his eyes searching their startled faces, then a great relief came. *It was all right.* This *was* Niora. Her clear golden eyes lit up eagerly, and she ran from her father, who was breathing heavily from walking.

She clung to Nick. "Nick! Oh, I was afraid I'd be alone!"

Two voices were arguing outside the door. Sam Cordy came in, his eyes twinkling and a grin on his round face. Nick's gaze flickered past him. The other man *was* Marsh Wallace.

Light blinked on in the window and they looked through. An unfamiliar sun burned in an unknown heaven, and below was a planet very like Earth.

"Behind us exist almost uncountable millennia of technical knowledge and advancement in every branch of science and attainment," the man in sparkling plastic said.

Nick felt momentary doubt. "But Alf's death?"

"An accident. He killed himself trying to escape. We could not explain, then. We dared not. We naturally regretted it." The other paused. "Time, like space, is not concurrent when the distances are vast and made through different orders of space. Back there, your little corner of the cosmos is experiencing time in our past."

The strange sun shone on a splendid heritage built by men who had indeed reached the stars, Nick thought. Mankind's past was now far away. Time was, when man had struggled and won his way through to this. The cities below were not alien—only futuristic. He looked into the eyes of those who had gathered around him and who lived because *his* mankind had reached the stars, and felt proud. It had been worth while. The future men were right. *Project 13* must never stumble across space and through millennia of time to this, man's most splendid heritage, once again introducing barbaric customs, greed, self-seeking trade, disease, and every seed of disaster. The first ship had come, in its due time, but had not been *Project 13*.

"You are descended from the old people of Earth," he said. "From the people of my day, through their sons, who first came out to new systems." "Of course."

High, noble buildings glowed under the sun. Slender vehicles sped along busy streets and wide bridges that spanned from block to block. Far beyond the city boundary a spaceship glinted in a long arc, taking off for the heavens. Nick nodded to himself. This was what he had always dreamed of, for man.

THE END

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QUESTION MARK

By GREGORY FRANCIS

Camouflage has always been a useful asset for survival. Perhaps an entire race would prefer to seem other than it really was if it intended to live—for ever.

Illustrated by HUNTER

NEW WORLDS

It was another Earth. In size, density, gravity and atmosphere it was almost a carbon copy. But that was only one of the things which Orden meant when he said: "Queer. Decidedly queer."

Raydon could find no fault with that. "No real traces of previous human influence, nothing concrete anyway," he said, "yet the aura of mankind persists."

"Which is a fine thing for a scientist to say," commented Orden.

There must be some natural law they knew nothing about. The planet was unique in having no predatory animals. No fight for existence. The question was: whence the check on population?

"Why not ask the monkeys?" Raydon asked. "Or the rabbits?"

"In a way," said Orden, "that's what I've done. I've cast a few pebbles into this peaceful pool, to see how the ripples spread."

"That sounds like poetry."

"Perhaps, but I've upset the rhythm of this world. I released two pairs of dogs this morning."

Raydon frowned. "You shouldn't have done that."

"Of course I shouldn't. I'm only a poor ignorant biologist. I should have consulted the physicist first."

"There's that, but it isn't quite what I had in mind."

"I know what you had in mind. You think the dogs will cause a slaughter. After all, they're hunting dogs. Mayhap. But I thought one question ought to be settled. No predatory animals—because there never were any, or because the local inhabitants know how to handle them?"

"The local . . . you mean the monkeys and rabbits."

"I don't mean anything else. Come in, Carole. Yes, you are interrupting. Do I mind? It depends on the point of view." And he looked at her legs.

Carole, of course, was Raydon's partner. By pure accident, the crew of the little survey ship was as diverse as possible. Carole was brunette, Sandra blonde. Carole small, neat, quiet, introverted. Sandra tall, well-built, wildly extravert. Orden, the biologist, was also tall, but thin and academic. The perfect schizothyme. On the other hand, Raydon, the physicist, was running to fat already, before he was thirty, and would have made a good exhibit as a cyclothyme. Survey teams might have been made up that way deliberately. As it happened, they weren't.

"Ease off," said Carole. "Raydon's jealous. If he isn't, he damn well ought to be."

"I'm jealous and I'm angry," said Raydon. He didn't look either. He was still thinking about the green world outside.

"I came," said Carole, "to ring the dinner-bell. This no doubt interesting conversation can be continued some other time. At the moment my mind is on my stomach."

"You biological monstrosity," Orden remarked.

They joined Sandra in the dining-room. The design of the ship demanded length without weight. So there were several rooms which weren't strictly necessary, and to fill them with stores was asking for trouble. There was hardly enough storage on the ship for essential equipment, but there was space to spare. It was just one of the anomalies of space travel.

"Ray's jealous and angry," Carole remarked. "I think you ought to know

about that, Sandra."

"Don't boast," the girl carrying soup-plates told her. "I know still waters run deep, and you might have been in films if you didn't prefer exploring. You look after your big fat physicist, and I'll manage my skinny and lecherous biologist."

They were practised on the topic, for often on long flights there was nothing to talk about but the triangle situation. If Orden didn't make passes at Carole, they had to pretend he did, or there would be nothing to say.

Orden sat down and toyed with tinned hash. "There's another topic now," he remarked. "It looks to me as if we could talk about this world for about a hundred years."

"And get nowhere," retorted Sandra, unimpressed.

"Climate temperate," Orden mused. "Never varies, the axis of the planet being vertical to the plane of the orbit. No deserts, and roughly half the surface area is land. The sea is salt and teeming with life. Fish and sea animals of all sizes and varieties. Evidently the same conditions do not obtain on the sea as on land."

"Try some of this meat," said Sandra solicitously. "It's rather tough, and you won't be able to talk for a while."

"Many centuries ago on Earth," Orden went on, unruffled, "a sailing ship stopped at an island in the South Seas. Only a small island, no more than five miles long by three wide. Its only inhabitants were birds. When the ship departed it left a pair of rabbits behind."

"Ten years later the same ship re-visited that island. Except for scrubby grass, the island was a desert. And everywhere were bones, rabbit bones. To walk on the island was to walk on bones. Those two rabbits had multiplied unchecked. Rabbits overran the island, stripped it of everything that grew, and finally starved to death."

"It hasn't happened here. I wonder why?"

"A small island is hardly comparable to a whole planet, surely?" said Carole.

"Why not? The only difference is the time factor. In time—"

"Don't explain," said Sandra. "We can just manage to work it out. You'd expect exactly the same after all the centuries this world seems to have lasted as it is now. But say, biologist, can it be that the poor dumb blonde has noticed something you've missed?"

"Fantastic," said Carole gravely. "What is it that the poor dumb blonde has noticed?"

"These monkeys and rabbits have brains," Sandra said. "I didn't give them an intelligence test, I only looked at them. And if they don't do anything very smart, they never do anything stupid. Try your tests, and I think you'll be surprised."

"I didn't miss that," said Orden. "There's just one flaw. Have you tried to catch either a monkey or a rabbit? Not on Earth. I mean one of the very special ones here. I'm inclined to think that the labours of Hercules were merely children's games compared with that job."

Sandra stared at him, open-mouthed.

Raydon spoke after a long silence. "You've got it," he said. "I tried it. I could almost believe—as a physicist—that they're on another world or in a

different dimension."

"The thought," Orden admitted, "had occurred to me."

Carole and Orden walked up a gentle slope on the quiet, friendly world. Their shoes sank into thick moss, grass and rich soil. There was no particular reason why Carole should be Orden's companion, except that he had been very careful not to suggest going out until Raydon was writing up the log and Sandra washing her hair.

"Why did you release the dogs?" Carole asked.

"For the usual reason. To see what would happen."

"What did you expect?"

"I was very careful not to expect anything. But I certainly didn't expect slaughter. If we can't catch the monkeys and rabbits, I don't think the dogs can. We'll see."

"But suppose you were wrong?"

Orden shrugged. "Sometimes a biologist seems callous. But at worst, we're on an island. A big island, admittedly, but still an island. You don't expect the dogs to build a boat, do you?"

"Not the dogs, no. But how did the rabbits manage to inhabit every little green island—swim? Or did the monkeys build them boats?"

"That's one of many possibilities," said Orden seriously. "One of the others is that the rabbits built the boats themselves."

Carole nodded without surprise. Orden surveyed her keenly.

"You got any ideas?" he asked.

"Not really. You mean because I'm not surprised? This survey work isn't as the adventure books make out. You know that. Our dialogue doesn't consist largely of 'It can't be! It's fantastic! Incredible!'—partly because we get used to things that are fantastic and incredible. If you land on a new planet and don't find anything that's fantastic—that's fantastic. This world has one or two strange things about it. But it would be even stranger if it didn't."

Orden laughed. "True," he admitted. "Some of the fantastic things here are—we know the animals. They're not new species that have to be given manufactured names, with bits of Latin and Greek in them. They're monkeys and rabbits. Not ordinary monkeys and rabbits, of course. They must have been here for thousands of years, I'd say, without interference, so why should they be ordinary? I know the first space flight was only four centuries ago. Nevertheless, the monkeys and rabbits are here, and I don't think they came as recently as four centuries ago. There are no bones. There are no young monkeys or rabbits . . ."

"You mean—immortality?"

"I don't mean anything at the moment."

They reached the top of the hill. "Ah," said Orden softly. "That's interesting."

About two hundred yards away, beneath a giant tree, a colony of monkeys sat in the sun. Among them were two of the dogs Orden had released. The dogs would suddenly dart at one of the monkeys as if to tear him to pieces. Then, a few paces from their victim, they would veer at an angle and turn as if searching for him. The monkey carried on doing nothing.

"That," said Orden mildly, "is probably what Raydon meant when he

said he could almost believe that they were in another world or a different dimension."

Carole nodded. "The dogs seem to meet a barrier that isn't here on this world. I think I'll find out if it really is there."

Orden summoned the dogs with a shrill whistle. He fed them with biscuits from his pocket.

"You expected to find them here?"

"No, but I knew they wouldn't be far away. Pickings on this world are lean—for dogs, anyway."

"You're going to stand here and watch while I make a fool of myself—like the dogs?"

"Yes. Switch on your headset first."

"Ah," said the girl softly. "A light begins to dawn." She walked slowly down the hill. The monkeys paid no more attention to her than to the dogs.

"I'm only ten yards from the nearest," she said, her voice carried over the tiny headset, "and I'd swear he's here, on this planet, and quite solid. I can see every hair and I can smell him. Now . . . Well, what do you know? It shouldn't happen to a dog. I can't see him. Straight ahead, you say? But which is straight? No, there's nothing there. I'm turning round, am I? But I'm trying to go straight. All right, I'll concentrate . . . Got him! You should have seen the expression on his face, Orden, when he realised I could see him. Strange, though, he hasn't attempted to struggle. No panic among the others, either, when I picked him up."

Approaching Orden, she stripped off her headset and shook her hair free.

"Watch out for the dogs," said Orden.

"They don't seem to know he's here."

"So he can still fool them, though not us."

The monkey still sat contentedly on her shoulder. "At least that settles Ray's problem," Carole said. "He's here, the monkey, I mean, and not on some other world or in some other dimension."

"Let's go back and tell the others."

"Must we?" She strained her neck to look at the little animal on her shoulder. "In certain circumstances three isn't a crowd."

"Why, Carole!" Orden exclaimed ironically. "I didn't know you cared."

"Yes, you did," she muttered.

Inside the ship, the monkey jumped to the floor and scampered around excitedly while Orden put the dogs in their quarters and fed them.

Carole left him to look for Sandra and Raydon. She came back in a few moments, alone. "Why, the dirty so-and-so's," she said. "I think they're two-timing us. It's all very well for us to two-time them, but . . ."

"I quite agree," said Orden, laughing. "But about this world . . . I've got an idea."

"Never knew you when you hadn't," said Carole. "I will say that for you."

"How much would you give up to be immortal?"

Carole considered him gravely, the laughter dying out of her eyes. "That would depend," she said, "on how long I thought about it."

"Would it be much?"

"It might be. People aren't really afraid of death—when they know they have to. But if they knew they might never have to die——"

"That's it," Orden nodded. "You'd give up a lot to be immortal. Perhaps not in the abstract, but when there was a concrete choice. So would I. I'd give up Sandra, for example, like a shot."

Sandra came in with Raydon just too late to hear that. Before Carole or Orden had a chance to speak, Sandra caught sight of the monkey perched on Carole's shoulder.

"You caught one!" she exclaimed, and darted over to pick it up. She stopped short. "I could have sworn . . ." she began.

"No need to swear," said Orden drily. "Look again. And keep looking."

But the strange thing was that neither Sandra nor Raydon ever saw that monkey again. They knew he was there, because Orden and Carole insisted he was, and they had seen him themselves for a few seconds. But he refused to appear as far as Raydon and Sandra were concerned, although he never disappeared to Carole and Orden.

"Selective," Carole mused. "They know we are the two who count. Orden always said they were intelligent."

"Any more remarks like that," Sandra warned her, "and you'll need more than an invisible monkey to protect you."

Carole, her mind on something else, made the classic retort. "Against you and who else?"

Sandra tried for a while to catch the monkey. But he seemed to have no trouble in avoiding her. Orden and Carole told her about it.

"He looks almost bored," said Orden.

When they were eating, the existence of the monkey, which Sandra and Raydon didn't seriously doubt, was proved by the disappearance of food.

"Somehow," said Orden, "they have developed a unique system of camouflage. At about five yards' range they become invisible. We were lucky in having a demonstration when the dogs tried to catch some of them. Now a dog doesn't rely on his eyes alone for perception. He 'sees' with his nose as well. Therefore it isn't enough for the monkeys merely to disappear. The conclusion we reached was that the dogs were hypnotised into believing the monkeys just weren't there. It works on us, too, as you see."

"What I want to know," said Raydon, "is why he doesn't mind you seeing him, but won't have anything to do with Sandra and me."

"That," said Orden absently, "ought to be obvious."

Carole caused a diversion by asking acidly how Sandra and Raydon had got on together. "No doubt she understands you, Ray," she said. "You've always been misunderstood."

"And I expect you've at last found someone who thinks you're beautiful, Sandra," Orden observed. "It only shows his vision is occluded, for you and Carole and I, of course, know perfectly well you're hideous. You——"

Sandra was ready to react as she was supposed to react, but Raydon hadn't been born the day before.

"Pipe down, Sandra," he said. "We seem to have discovered everyone wants a shift of partners. But that's a detail. The real point is that something very strange is going on on this world, and I think the sooner we're off it the better."

He spoiled the effect of that by introducing it calmly at first, and getting hot about it later. At first he wasn't really serious. But as he considered it, it seemed better and better to him, and after a while they almost had to restrain him physically from getting to the controls and blasting off.

Sandra was puzzled. Carole and Orden weren't.

"He's right," said Orden at last. "There's something here we could do right well without. Why waste a lot of time making up our minds?"

"I don't get this," said Sandra.

"You're not meant to, darling," Carole cooed.

"Do you want this world to remain a mystery?" Sandra demanded. "You know our first rule—find out. We never leave anything unsettled. We——"

"Talk about that in space," said Orden gently. He looked at Carole. She nodded imperceptibly. She understood.

The ship took off an hour later.

"... cowardice," said Sandra angrily. "And that's the least you can say about it. Why, if we run when there's nothing to run from, what will we do when there's real danger?"

"You're perfectly right, Sandra," Raydon admitted. "Only this is the first time I've heard what you've been saying."

"What?"

"Hypnosis, Orden said. He only called it hypnosis because he didn't know the right word. We don't have a word for it."

Sandra stared, then nodded. "Let's go back," she said.

"If we know the way."

"What do you mean, if we know the way?"

"At a rough estimate, we already have fifty worlds to examine. You're no astronomer, and I remember nothing. Where are Orden and Carole?"

"You mean you don't even know that?" Sandra seized his arm and felt his pulse wonderingly. "They stayed behind. It didn't bother you. You——"

"Never mind what I said or did. I remember just what I'm supposed to remember, no more. You're probably the same."

"It's possible." She looked into the blackness of space, knowing she might be looking directly at the nameless planet of the rabbits and monkeys. Raydon, possessed as he had been, had done strange things to their course.

"We can find them," she said.

Raydon shook his head. "I don't think so. Not till they're ready. Orden and Carole and the other people on that world."

"People?"

"Well, monkeys and rabbits, if you like. If one of the monkeys can hide himself at five yards, don't you think a whole world of them might be able to hide a planet at a few million miles?"

Realisation dawned in Sandra's face.

Orden and Carole were still recognisably Orden and Carole. But soon no Terran would ever know what they looked like. There would be other Terrans, of course.

Space flight, apparently, was discovered regularly every now and then. The intervals, to the world of monkeys and rabbits—or the world that seemed to belong to the monkeys and rabbits—seemed very short.

Any interval seemed short to an immortal.

Percentages . . .

Editorially, we have been playing a most intriguing statistical game for some considerable time, and our findings compiled over the past two years have produced some interesting and surprising results. For instance, we are forced to the conclusion that we never hear from 87 per cent. of our readership. Presumably, by their silence, they are more or less satisfied with the editor's decisions. But the other 13 per cent. . . .

Here we have discovered that there are two main streams of correspondence divided between the average reader who has a complaint, or request, or suggestion, to make—or just plain letting off steam to a kindred soul (the editor); and the average fan who writes in regularly and comments upon everything in each issue from cover to cover. The surprising part here is that the active fan is represented by .35 per cent. and the average reader by 12.65 per cent. ! Most of the .35 per cent. rate the stories; very few of the 12.65 per cent. do.

On the face of this it would seem that the *Literary Line-up* is a waste of space, as obviously it doesn't mirror a true opinion of a cross-section of the readership. From this fact, it would appear that the story policy of *New Worlds* is virtually swayed by a minority. In effect, this is not true, because the information extracted from the letters in the 12.65 per cent. section (even where stories are not rated), shows the type of story best liked by the larger percentage—and, in practice, the editor attempts to please the silent 87 per cent. anyway.

On the subject of our recent *Post Mortem* column (despite repeated requests by the more vociferous readers), no reactions either way were forthcoming, although *two fans* wrote in and said they didn't like the way it was presented, as they were used to reading the American-style letter columns (one admitted he *only* read the letter columns !). The cover girl on the last issue aroused some scathing remarks (from .03 per cent. of those who commented), but reactions were rather mixed. Most critics agreed that Reina Bull's cover was a nice art job, irrespective of subject. Our sales reaction showed a jump of 1,700 copies in the first few days the issue was on sale. Whether it was the cover or the weather, we will never know.

To reassure the .03 per cent., cover girls will not be a regular feature, but I have no doubt they will appear from time to time.

Another interesting feature which transpires from our statistics is that most stories get rated from top place to bottom by the "experts," proving that they are divided evenly throughout the voting, and the first-place stories are usually those which take second and third-place votes consistently.

More ratings from our silent 87 per cent. readership would be of inestimable help in checking certain types of stories (a postcard will do), but, as many readers have their favourite author and more often than not a favourite type of story, even a 100 per cent. reaction would still not prove the editorial policy right—or wrong.

I think the policy will remain as it now is—to publish the best available stories, mainly by British authors, with the emphasis on a good literary standard. Don't you agree ?

JOHN CARNELL

LIAISON SERVICE

By SYDNEY J. BOUNDS

Telepathy can be a useful asset when faced with an alien crystal culture on an asteroid.

Illustrated by HUNTER

Blair watched the needle of the fuel gauge with growing concern. He ran his fingers through a tangled mop of reddish hair and groaned. The sound alarmed me.

"Of all the rotten luck," he said despairingly, "to run out of fuel at a time like this. After chasing Roberts halfway across the solar system too."

I clucked sympathetically. I liked Blair and, despite his sarcastic manner, wished him well. After all, he was young and enthusiastic, and a mere lieutenant in the Interplanetary Space Guard doesn't get the chance of capturing a band of space pirates every flight. But if the two-man scoutship was out of fuel, the chase was off.

I watched the silver visiscreen. The black ship ahead was certainly not gaining a lead; in fact, it seemed to be losing speed. Beyond the pirate ship, I saw, rushing towards us, a barren mass of rock, its surface pitted and scarred by countless tiny meteorites.

"An asteroid!" I yelled happily. "Now we can refuel."

Blair didn't share my happiness. He said, gloomily:

"And while we're refuelling, Roberts and his crew will get out of range of our scanners. We'll never pick them up again."

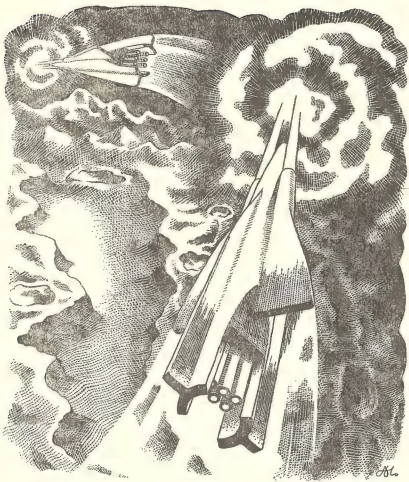
"Maybe they'll crash into the asteroid," I suggested.

Blair's grey eyes stared at me pityingly.

"Maybe they'll stop and give themselves up!" he snorted.

I didn't say any more. We had been on bad terms since I made three wrong moves at chess, throwing away the game. Blair takes chess seriously and he lost his temper and made rude remarks about my intelligence quota. I returned to the visiscreen, ignoring his glare.

There was something wrong with the pirate ship. It was decelerating towards the asteroid, forward tubes blasting a silent stream of hot gases.



Even if I'm not the brightest member of the crew, I could still work out the answer to that one. Roberts was out of fuel too!

"We've got them," I crooned delightedly. "See, they're landing."

Blair shouldered me away from the visiscreen. His face puckered into an expression of hope and anxiety. He rubbed his jaw thoughtfully.

"This may be a bit of luck—or it may be the end of us. The asteroid isn't large, so there won't be fuel enough for two ships. We've *got* to beat Roberts to the caverns—if we can refuel before . . . hold tight, Monty—we're going down!"

I wrapped myself round a stanchion rail. Blair slipped into the chair in front of the control panel, fastened a safety belt, and punched firing keys. The tiny spaceship shuddered. It's no fun landing with too little fuel. We

pancaked, and the under-deck grew hot as the ship ploughed a furrow through frosted ash.

When the ship came to rest, I detached myself from the stanchion rail and said:

"This is my job." I quoted the Space Code, swelling with pride: "The Captain of any ship landing on a foreign body in space will avail himself of the specialised ability of the authorised representative of Extra-Terrestrial Liaison Service to facilitate intercourse with the native inhabitants."

Blair looked at me as if he were examining some new kind of insect.

"This asteroid," he said patiently, with the air of a veteran explaining the rudiments of space travel to a crowd of Earth-Moon trippers, "is barely one hundred miles across. It is composed mostly of powdered rock and porous metals. It is, to say the least, *doubtful* if it harbours any form of intelligent life."

I writhed a little, because there was really no need for him to be so sarcastic.

"But it's not impossible," I protested. "Anyway, if there are inhabitants, it will cut down the search for fuel by some hours."

Blair regarded me thoughtfully.

"That's a point," he admitted. He thought about it some more, and added:

"Yes, Monty, slip outside and hunt up a fuel supply. I'll do my best to draw off Roberts, so you'll have a free hand. Once we've refuelled, we'll have the pirates just where we want them."

I moved for the air-lock, but he yanked me back.

"Do you know," he asked gently, "what it is you're supposed to be looking for?"

I drew myself up.

"Members of Liaison Service," I said with dignity, "although not instructed in the technicalities of atomic engines—"

"Cut it," he said. "I seem to remember a simple job on Deimos you fell down on. Then there was the Callisto affair . . ."

"There's no need to bring that up," I said hurriedly. "Atomic space drives are fuelled by water. The asteroids usually contain *ice*, in the caverns under the surface."

Blair grinned.

"O.K., Monty—go get yourself a block of ice. Meanwhile, I'll see what I can do to discourage Roberts and Co."

I left him loading a hand blaster, and went through the air-lock. I felt confused and a little hurt. There was really no need for Blair to pick on me that way. It's not my fault I'm not very bright and know practically nothing about Space Guard routine. After all, *I'm only a telepath.*

Outside the ship, a crazy landscape of jagged rocks stumbled to a curved horizon. The vault of space was a diamond-studded curtain of velvet hanging across the sky. Veins of fused metal streaked the gaunt cliffs in front of me, glinting in the faint light of a distant sun. Black-shadowed crevices, dropping to unplumbed depths, divided the bleak plateau into a bizarre chequer-board.

Gravity was slight, enabling me to cover twenty or more yards at one bound. I moved away from the scoutship, searching for the entrance to an underground fissure, my telepathic circuits wide open to receive any thought waves that might be radiating. I saw no sign of the pirate ship; it must have

landed beyond the cliff wall.

Twice I caught fragments of thought, too weak to identify, but strong enough to enable me to fix the general direction. I bounded across the grey ash plain towards the radiation. Excitement built up inside me; there *was* intelligent life on the asteroid. I started transmitting on a wide beam: *We are visitors to your world. We come in peace and need your help.* I had no way of knowing if my message was received; the thoughts I picked up were too chaotic to do more than give me a general direction.

But any inhabitants there might be would almost certainly live underground on this sterile world—so they'd know where to locate the ice we needed for fuel. My ego climbed a couple of notches. It's good to feel you can do something others can't and, ever since I'd left the Institute (after basic training), Blair had been down on me because I'm not so bright. But that isn't my fault; I work for Extra Terrestrial Liaison Service and what I know about rockets could be printed in twenty-four point on a single frame of micro-film. Blair told me once that I have a genius for stupidity, but I'm not at all proud of it.

Anyway, I have a sixty-four dollar inferiority complex and that makes it difficult for me to form friendships. Before I became attached to Lieutenant Blair, I was always in trouble. Even now, I'm not sure when he's being sarcastic and when he really means what he says about my lack of intelligence. But, as I said before, I like Blair—and I wanted him to capture his pirates.

The tiny ship had dropped out of sight behind the curved horizon and I was alone on an alien world. Twin lines of footprints trailed behind me in the basalt dust covering the bottom of a deep ravine. I climbed the slope on the far side and paused on the crest of the ridge.

Waves of thought surged about me; strange currents of mental awareness forming a rhythmic pattern that grew stronger with every step I took. I descended the next crevice, my mind absorbed by the problems of selective telepathy.

It was odd, I mused, that I was able to communicate with a variety of life-forms, ranging from the grimalkins of Io to the intelligent fungi of Venus, yet be unable to contact Blair. I sighed. It would be so useful for picking up the specialised knowledge I lacked. Of course, it had been explained to me, back at the Institute—some sort of mental block—but I never really got the hang of it. Maybe it's a good thing, anyway; if I could read Blair's innermost thoughts, I'd always be under suspicion and life wouldn't be worth living. For one rosy moment, I imagined myself baffling him over the chess board—with the ability to look into his mind and see every move he planned, I couldn't lose!

By this time, the pattern of thought waves pulsating in my head had grown stronger. It felt as if a hundred tiny voices, each of a different pitch and intensity, were throwing an unending stream of questions at me.

"Who are you? . . . What are you? . . . What are you doing here? . . . What do you want?"

Over and over, the questions were repeated. By the strength of the radiation, I knew I was near the source, but still I could see nothing resembling intelligent life. I picked my way over loose boulders, working down into a narrow crevice. The walls leapt up at crazy angles, casting a chequer-board of light and shadow over the bizarre landscape.

Abruptly, the ground dropped away in a steep slope and the walls grew together to form the roof of a dark tunnel burrowing into the depths of the asteroid. I switched on my headlamp and moved into the shadows. After fifty paces, the tunnel widened into a fairy grotto.

My headlamp cut a swath of light through the gloom, illuminating the cave. The walls were lined with myriads of tiny crystals and the beam of my torch was reflected from innumerable shining facets until I was dazzled by a kaleidoscope of flashing lights. It was like a room with a thousand mirrors.

The crystals varied in size; some were as large as a man's head, others no bigger than a vitamin pill. Each crystal glowed with blue light, the larger the crystal the deeper the colour. At first, I thought the crystals to be part of the rock wall but, as I studied their formation, I perceived that they were quite separate. Row upon serried row, they lined the walls of the grotto, their coruscating facets flushing the cave with shimmering blue light.

My foot slipped on something. I flashed my light downwards to see—*ice*! I snapped off a short stalagmite and put it in the pouch at my waist, a sample to prove to Blair that I had actually located a deposit of the fuel we needed. I straightened up, my mind alert, sensing danger.

Shrill voices screamed a thousand protests inside my brain.

"We know . . . We are aware . . . Death . . ."

I looked round, baffled. There was no one in the grotto apart from myself—and the crystals. Then I got it. The telepathic voices I received came from the crystals lining the rock walls—living, sentient crystals!

For a moment, I doubted my senses but, as I stood there, the colour of the crystals deepened; they pulsed angrily and a deadly radioactivity flooded the grotto. I retreated hastily and took cover behind an outcrop of solid rock. Although we telepaths are immune to the worst effects of radioactivity, I was still not keen on indulging in a bath of alpha particles and gamma rays. I beamed a message at the crystals.

"We are visitors from another world. Our ship—" (Here I had some difficulty in getting over the concept). *"Our ship needs a supply of the frozen water in your home. Without this, our ship is unable to move and we cannot return to our world."*

I paused to learn what effect my harangue might have. Silent voices teemed through my head.

"No . . . No . . . Go away . . . Leave us . . . The ice is our food . . . You shall not take our food . . . Go . . ."

There was a sudden surge in the intensity of radioactivity and I was forced to retreat even further from the mouth of the grotto. In vain did I argue with the crystals; promises of other elements in exchange for the ice brought only angry protests and an even stronger blanket of deadly rays.

Exactly how the crystals 'fed' on the stalagmites and stalactites lining the cave, I could not clearly understand, but the impression I received was that radiation emitted by the crystals acted on ice in such a way as to change its nuclear structure—releasing energy waves which the crystals absorbed. If I had the idea right, they were gorging themselves silly at that particular moment! Anyway, there was nothing I could do but return to the ship and report to Blair.

I trekked back across the wasteland of rock and ash and passed through the

airlock.

"Lieutenant," I said excitedly, "I've found ice!"

"That's fine," said a strange voice. "You can show us where it is."

I blinked. Blair was huddled in a chair and I saw that his hands were tied. The man who had spoken was tall and dark with glittering eyes and a short, pointed beard. I took an instant dislike to him.

Blair said: "Sorry, Monty. There was no way I could warn you. This is Roberts—his men took me by surprise."

Roberts' pirate crew were with him. The second-in-command, a large man with a paunch and splotchy face, laughed.

"We don't need the lieutenant any more," he said, gesturing with a blaster. "This Liaison Service moron will lead us to the fuel deposit."

"I won't," I snapped, because I hate people who call me a moron just because I'm a telepath and not like ordinary humans.

Blair shrugged hopelessly.

"There isn't anything we can do," he said. "Look after yourself, Monty."

Roberts said: "Get rid of the Space Guard, Todd."

Todd, the second-in-command, raised his blaster and pointed it at Blair. I said, quickly:

"If you kill him, I'll *never* tell you where the ice is. And remember, I'm a telepath—you won't find it so easy to make me talk."

Todd hesitated, lowering his blaster, and looking at Roberts for instructions. I went on:

"Anyway, you won't be able to get the ice. They won't let you take it away."

Roberts said: "They . . . *they*! Who won't let us take it?"

"The crystals," I explained patiently. "You see, the crystals live on ice. It's their food."

Roberts nearly swallowed his beard.

"Crystals," he murmured, regarding me with pity. "Crystals aren't living things. They can't possibly stop us taking the ice."

Todd laughed till his large paunch shook like a jelly.

"These Liaison Service telepaths—crazy as Martian sand bugs!"

Blair's eyes avoided my face. I don't know whether he felt ashamed, or thought I was trying to trick the pirates. I knew a moment of horror. Suppose Roberts didn't believe me and went into the grotto? He'd never come out alive and, though I knew he had murdered women and children in his piratical career, I didn't want his blood on my hands. That's on account of my training at the Institute: *Members of Liaison Service will, at all times, place the safety of non-telepathic humans before their own.*

The Creed makes no distinction between Guardsmen and pirates—to avoid the danger of arbitrary judgement between good and evil. So I had to do my best to persuade Roberts against going into the cave.

I described my journey across the asteroid in detail. I told of the strange thought-patterns I had received and my discovery of the grotto and its living crystals. I dwelt on the danger of radioactivity, emphasising its intensity and deadliness.

Blair drawled: "Sounds like a pipe-dream—only Monty doesn't smoke!"

Todd was smoking though. I admired the way he drew on a cigarette

and blew smoke rings across the tiny control room. Once, I had tried smoking (Blair had offered me a cigarette, trying hard to keep his face straight), but I had been unable to find any pleasure in it. Smoking was a mystery I never solved.

Roberts laughed; obviously he didn't believe me.

"I've always thought," he said, clearing his throat, "that the Liaison Service was grossly overrated. Now I'm sure. Todd, issue the men with picks. This moron will lead us to the ice deposit—and we'll take Blair along as hostage."

I waited while they pushed the lieutenant into a spacesuit.

"All right," Roberts said. "Lead the way to the cave."

I went through the airlock again and started across the asteroid's fantastic landscape. Roberts was right behind me, carrying a silent Geiger counter. Todd and Blair were together. Strung out in single file, the pirate crew, space-suited and carrying ice picks, toiled up the side of the ravine.

The cold light of a distant sun made black shadows, etching the razor-sharp peaks and bottomless pits, the drifts of pumice dust. Roberts' voice came through the intercom, oddly muffled:

"How much further?"

I pointed down the narrow gorge dropping away at our feet.

"The tunnel starts there."

I led the way down the slope, deliberately refraining from broadcasting any thoughts on a wavelength the crystals could receive; the patterns I picked up were quite random and showed no awareness of our approach.

The walls of the ravine grew together and we reached the point where they met, forming the entrance of the tunnel leading into the grotto. Roberts signalled his men to rest. He went forward, testing with the Geiger for radioactivity. The counter was silent.

"Nothing," he said. "It's safe enough. Let's go in."

Todd's voice rasped through the space-phone.

"That moron was lying—trying to stop us reaching the ice."

Roberts inclined his head.

"Probably the crystals have no more reality than the deadly radiation supposed to exist here."

Blair stared thoughtfully into the darkness of the tunnel.

"By your own reasoning, Roberts—the fuel doesn't exist either!"

Todd snarled: "Shut up!" and dug the muzzle of his blaster into the lieutenant's ribs.

Roberts waved his men forward. I made one last attempt to dissuade them.

"There are living crystals in the grotto," I said earnestly, "and they feed on ice. They won't let you take their food supply—and they can emit lethal radiation your spacesuits cannot stop. It's certain death to enter."

Todd laughed and thrust me aside.

"We've got to have ice—or stay on this blasted asteroid for the rest of our lives!"

Roberts stepped boldly along the tunnel, into the grotto. Todd followed him; then the rest of the pirate crew. I stayed outside, gripping Blair firmly; I wasn't going to let him go in.

I watched their headlamps bob up and down as they passed into the cave. Myriad blue flashes reflected off the strange crystals lining the walls.

Startled exclamations reached me over the space-phone.

It was an eerie scene; a dozen grotesque, space-suited figures hacking at stalagmites with ice picks; the shimmering blue light from the changing facets of countless crystals; the thought-patterns hammering away at my brain. Roberts' voice shrilled over the intercom:

"This is the stuff. Ice! Grab as much as you can carry. We'll soon be off this asteroid."

I hung on to Blair as I saw the blue light deepen in intensity. Roberts rapped out:

"Get back—the Geiger's working!"

Deadly radio-activity surged through the grotto and, one by one the pirates dropped in their tracks. I saw Todd go down, writhing in agony. Blair drawled:

"All right, Monty. You can let go now. I believe you."

It was all over in a few seconds. Roberts was the last to die. He staggered to the tunnel, eyes glazed and appealing. He sank to the ground and moved no more.

Blair and I waited till the radio-activity faded away and a faint blue light played over the corpses on the rock floor. Blair's grey eyes held a warmth I'd seldom seen before; his voice was gruff.

"Thanks, Monty, and now—the ice!"

I went in alone. As I've mentioned before, radiation doesn't have much effect on a telepath and I was able to collect enough ice to refuel our tiny scoutship. I scooped up as much as we'd need to take us back to Earth before the radio-activity became intense. I beat it out of the cave fast.

We walked in silence, back to our ship. The whole episode had a dream-like quality; the fantastic world of arid dust and rock under the black velvet of space; the strange crystal life; the death of the pirates. We were alone on an alien world, a wandering asteroid, and the atmosphere was frightening.

We entered the ship and closed the air-lock. Without speaking, Blair set about refuelling the atomic engines; it has always amazed me how clever the designers were when they decided to use water as a fuel—because ice is one element you can always find on the tiny asteroids cluttering up the space routes. But I guess that's just the reason they picked on water . . .

Blair fired the rockets and we blasted off, leaving behind a lifeless pirate ship. Never again would Roberts and his crew raid the transport ships of space, killing innocent men and women. Of course, it would have been better if the lieutenant had been able to take in prisoners, but even so, his report sheet would look pretty good:

Contacted space pirates under command of Neil Roberts. Engaged the enemy on asteroid. Pirates killed . . . perhaps he'd say something about me in it. The success of the mission was due, in part, to Montague IV . . .

Blair set a course for Earth. He switched on to automatic and said:

"How about a game of chess, Monty?"

But I only half heard him. I was picturing the green fields and blue skies of Earth. And Martha. When I thought of Martha, with her shiny plastic body and wonderful prismatic eyes, I felt mighty glad I *was* a robot.

THE END

LIAISON SERVICE

WHEN ALIENS MEET

By J. T. M'INTOSH

Both Martian and Venusian culture was more advanced than Earth's. Man only had one advantage which might save him from being a colony or a battleground.

Illustrated by QUINN

They shot my father as a traitor. He was a murderer too, but his treason was so much worse than mere murder that murder was hardly mentioned at his brief but quite just trial.

I was fifteen then, and looked twenty-five. I was one inch over five feet, the daughter of a traitor, silent, unemotional, and a general in the Army. Yes, General Price—General Phyllis Price, a general who had never held any other rank in the army. I was also quite incredibly beautiful, but everyone knew the secret of that. No one but me knew the details, or ever would know them, but everyone on Earth knew a little of the story.

I was a general because I had to sit in on all conferences and know everything that was going on, and say whether I approved or not. You couldn't have a woman civilian contradicting the Prime Minister, the Minister for War, the Air Secretary, and the field-m Marshals and admirals. So I was a general, *pro tem.*, because Earth was facing two great enemies and I was the only human being who had any experience of one, and knew more about the other than anyone else except my father. When he was dead, no one mentioned the fact that he had been my father. It was tacitly admitted that I couldn't help that.

Two years before, twenty thousand people had gathered well outside London to roar their acclaim as Jim Price set out for Mars—and to turn away with misty eyes as the tiny ship disappeared from sight. I didn't guess then how well I was to know that little ship. Jim Price was a hero then, the man who had conquered the moon and was opening to mankind the way to the stars. I was there, but I bore only a curious, fleeting resemblance to the Phyllis Price of two years later. I was a pale shrimp in a blue cotton dress, like most girls of thirteen but smaller, as the newsmen's cameras caught First Man on the Moon Price's fond farewell to his daughter before pushing



WHEN ALIENS MEET

man's boundaries a few million miles wider. He didn't say much to me—just "I'll tell you all about it when I get back, Phyl."

I was left for a year wondering whether I was an orphan or not. I was staying with my mother's elder sister, Aunt Margaret. I was an ordinary sort of kid, more interested in swing and screen stars and clothes and boys (who weren't much interested in me), than my father out in space somewhere. I had never had a chance to get to love him. I tried dutifully, but I couldn't help knowing that if he never came back it wouldn't make much difference to me.

I was sitting up in bed one night, churning in a whirlpool of adolescent emotions, when the door opened quietly and someone stood just outside the field of my bedlamp. I clutched the sheets tight, one half of me terrified and the other detached and interested, wondering whether for the first time in my life something worth a newspaper headline was going to happen to me. *Space hero's daughter assaulted in bedroom.*

"Don't you know me, baby?" he asked quietly.

He was exactly the same, dressed in the same one-piece overall. I leapt from bed and rushed to him. His death would have meant little to me, but at times like that you get caught up in a web of emotion and laugh and cry, and time hits a bump. I kissed him and hugged him. For the moment nothing in the world mattered as much as the fact that he was back.

"The ship's in the lane," he said abruptly, breaking the spell. "Get dressed."

My sobs stopped. I stared at him wonderingly.

"I have to do this, Phyl," he said. He kept his face in shadow, so that his eyes were lost in black pits.

"Do what?" I asked.

"I can't go myself," he went on, half to himself. "But someone has to. It's the only hope. If I had a son it would be a job for him. But . . ."

I dragged him into the light, half expecting to see a scarred, hideous face. But he hadn't changed, except that his eyes would never meet mine.

"You're going to take me back to Mars!" I whispered, terrified.

"No. I'm not going to take you anywhere. You're going alone. And not to Mars, to Venus."

My world spun for a moment, then settled, looking much more promising. "You haven't been to Venus?" I asked accusingly. He shook his head. I saw the picture, and liked it. *Girl conquers space.* First human being to land on Venus—Phyllis Price. It would be there in the history books a thousand years hence. In twenty thousand years I'd still be remembered. Children at school would learn the date of Phyllis Price's landing on Venus. Venusian cities would have Phyllis Price squares . . .

"Why didn't you say that before?" I murmured thoughtfully.

He smiled bleakly, perhaps realising belatedly how he should have handled me. I forgot the dangers. Or rather, not being entirely a fool, I put them aside until I could no longer ignore them. I was blind to everything except fame.

"Oh, well, if it's necessary . . ." I said.

"I wish I knew. It might be a terrible mistake."

But I wasn't interested in his mental conflict. He left me while I dressed. "Don't waste weight by putting on a lot of clothes," he said. "It's hot out there."

"Hot—in space?"

"You wouldn't understand if I explained in detail. The atomic motors generate heat—more than the ship can possibly lose in space. But I've written down all you must know."

So five minutes later I came out shivering in the cool autumn night, dressed for a heatwave. Again my father hurried me, not giving me time to think. My enthusiasm was rapidly cooling. If I had to take off alone for Venus I wanted cheering crowds and brass bands as Jim Price had had. I must have said something of the sort.

"If people knew what I know," he said, "they wouldn't let you go at all. That's why I'm rushing you off like this."

"They would stop me? Because it's dangerous—for me?"

My father grinned wryly in the gloom. "No one would stop you doing anything that was dangerous for you," he said. "If that were all, they'd just wish you good luck."

We had reached the little ship, parked neatly in the lane like a car. But though it could carry only one, it was five times the size of a car.

My father slid back the lock. I drew back. "This is ridiculous," I said. "I can't pilot this thing. I . . ."

"Everything's worked out for you. You'll find a note on the table telling you what to do." Gently he pushed me inside and shut the door.

I might have beat on the door until he let me out, but once again I had a rosy vision of the journey, and still under its influence read his note and started the motors. The course was pre-set. Before I had time to get far in my deliberations I was leaving Earth's atmosphere.

It certainly was hot. I started to read the voluminous instructions he had left for me, sweat running into my eyes.

It wasn't as easy as he had made out. I had to learn to handle the ship and a lot of other things. There were days that were endless, days that were lost because nothing remained of them in my memory to distinguish them from other days. I had to get used to the constant heat—that was like learning to live in a Turkish bath. I had to develop a time sense that was independent of night and day. My small mental resources were stretched to the limit by the mere effort to stay sane. Yet I wasn't unhappy. I was still seeing myself as a heroine of space.

I reached Venus. Rather ludicrously, perhaps, I hovered for a moment before landing while I put on my clothes, which I had not worn since I was only a few thousand miles from Earth. It was no cooler without clothes, but at least there was nothing to hold the sweat. On top I put the rubbery suit that would enable me to breathe in the poison bath of Venus. I was no physicist, but I could read a dial as well as anyone. There was a little oxygen, but it was a mere trace smothered in carbon dioxide. I wouldn't live in that hot, moist atmosphere for thirty seconds without the suit.

I've never told anyone in detail what happened on Venus, and never will. I'm not afraid of my sanity—that's safe enough. But the sanity of others—well, it all depends on how much imagination they have. Anyway, it's not a story for Earth ears. It's between me and the Venusians.

Yes, there are Venusians. They're not unlike humans in that they consist

physically of two legs, a trunk, a head and two arms. They're more like an aeroplane in the way they stand, on two short legs and tiny tail, the body tilted forward and upward from the tail, the arms, in a position of rest, out like wings. But they don't fly. Their bodies, in fact, are singularly useless.

They breathe carbon dioxide and exhale oxygen. Their lungs—two of them, like ours—ignore the hundred other components of the Venusian atmosphere and distil pure carbon dioxide.

They think, but not as we do. They think rather like an internal combustion engine, in a series of tiny explosions, adding up to terrific power. And if you ever meet one it won't be long before you can talk to him, even if you're the first human he's met. He'll make you say something—anything, it doesn't matter to him—and when you've talked for a while he'll be able to reply. Soon you'll find he's using words you know, but haven't used. Perhaps wrongly at first, but in an hour or two he'll speak English as well as you do, and more fluently. His voice will be an exact replica of yours.

When I told them the circumstances of my arrival on Venus, how my father had returned from Mars and immediately sent me to Venus, they showed the only excited interest I knew them to evince then.

They discussed it openly before me, in my own language.

"Could he be hoping for help from us against the Martians?" someone asked, really thinking aloud. "The Martians will obviously attack and subdue Earth unless we take a hand. That must always happen when two unequal races come into contact. Earth didn't seem to know this. But to know of our existence and to send the girl here he must have had some source of information about us. It could only have been by deduction."

"Earthmen couldn't have deduced it," said another. "It must have been the Martians."

"Wait," said the first Venusian. "Earthmen may vary. They have obviously greater potentialities than they have ever tapped. Jim Price may be one of Earth's great thinkers. A super human."

"No. They vary little relatively, as we have learned from the girl. They think they have progressed from a lesser species, while obviously they have regressed from a superior one."

You can only remember what you understand at the time. Only when the Venusians were faintly puzzled, trying to reach a conclusion, had I any chance—then—of understanding their thought processes.

On another occasion one of the Venusians said: "From what we know of Price from his daughter, he must have expected her return. Also the Martians allowed him to return. What was their purpose?"

"It could only have been to demand surrender," someone answered. "Our purpose, of course, will be purely ethical. The question is, while Earthmen are purely bystanders now that all three races have space travel, which is the superior race, the Martians or ourselves?"

If they'd asked me, I'd have said I couldn't conceive of a race which they would have to fear. But then, I could never have conceived of them before I met them.

The Venusians' minds were such that they needed nothing else—not numbers, nor machines, nor organisation. They were minds that had their roots in some cosmic framework; minds that could annihilate anything but

distance, with no physical reinforcement. The only limitation on the Venusians was their slow, unadaptable bodies and the fact that their incredible minds were prisoned in them.

Even then, terrified, half mad, in constant mental and physical torment, I saw that the Venusians had a weakness, if anyone of any race could ever get near it . . .

One thing was clear. Only Earth's science would ever have achieved space travel. The Martians, according to the Venusians, must be a logical race, with very little imagination. They could never use the method of trial and error, the only method for the discovery of space travel. The Venusians worshipped beauty, justice and genius. They were not scientific in the material sense. They had no mechanical ability. They had no machines. Given the space ship they could duplicate it on a larger scale and in a general way understand its functions, but they could never develop and improve it.

Yet they could be a terrible enemy, without machines. Why had my father sent me to Venus to give them the secret of space travel? Even they didn't know. They used as a working hypothesis the possibility that he had expected help from them against the Martians. But they were aware that his choice of me as the emissary instead of himself was not in accord with this theory.

I never questioned Venusian conclusions. One might as well, knowing nothing about cars, insist that they must run better on water than petrol.

When they had finished with me they might have let me go straight back to Earth. But if they had even stray dogs would have been sick at the sight of me. It wasn't that they were sadists and had deliberately mutilated me. It was rather, as a philosophical Venusian who knew the phrase might have remarked, that you can't make an omelette without breaking eggs.

So they kindly reconstructed me. Mentally, of course, for they had no machines. I was of an alien race, but that made no difference. The only real resemblance between Venusians and Earthmen is in standards of beauty. Knowing the nature of ultimate beauty, they made me such a woman as has never been born. Suppose in a world there are no radios but crystal sets—and one eight-tube superhet. I was like that.

When I returned to Earth I didn't need a mirror on the wall to know I was the most beautiful thing on the planet. Beside me, a screen star and a hideous old woman were equally unattractive. Moreover, I would live at least five hundred years. My mind was cleaned out, overhauled, sharpened—more than the Venusians knew, for even they didn't know everything. I could get more out of life than anyone else on Earth. That was part of the solution to the Venusians' ethical problem of what to do with me. There was more to come. When they took over Earth I should still be favoured. For I had made it possible.

How can anyone explain the inexplicable? It's a rhetorical question. You can't. You can only say what happened. That's incomprehensible enough sometimes, but it must always make some sort of sense. I don't explain the Venusians. I don't try to interpret them. So at least I don't go as far wrong as those who do, knowing far less of them than I do.

On the trip back I learned a lot about myself that even the Venusians didn't know. They hadn't allowed for human capacity for development. Or at any rate, they hadn't allowed enough. They had shown me things they never meant me to be able to do myself. But human capacities are really rather

amazing.

I landed quite publicly on Earth, near London. I knew I would soon be conferring with my father, with the Prime Minister, the Army, Earth's foremost scientists. I was right.

I found Earth already under the strictest military rule it had ever known. I had been gone seven months. Only after that gap did I learn the news my father had brought back from Mars.

The Venusians, naturally, were right. The Martians were a logical race. They would never have discovered the secret of space travel. Earth, despised when they knew us by both Martians and Venusians, had had to do that and open the door to two great enemies.

When I landed I was surrounded by soldiers. They were not the coarse, kindly Tommies of romance and comparatively chivalrous local wars. They were hard-faced men who had already machine-gunned hysterical crowds and seen friends and relatives swept away to concentration camps. Earth couldn't afford to panic. Democracy and the rights of the individual were suspended everywhere, until further notice.

"This way, popsy," they said, and tried to push me around a little, just for luck, and to show me I wasn't somebody just because I had been to Venus. They were rough with me because they had learned to be rough with everybody. They had learned, these ordinary, decent men with families of their own, what all servants of dictatorships learn. You're never shot for being brutal and inhuman, but you may be for being kind and considerate.

However, it didn't get them far with me. I had learned enough with the Venusians to show them that even unarmed I wasn't defenceless, and that though there were twenty of them I could go with them or not, as I pleased.

That night there was a conference. I didn't see my father until we sat opposite each other before the Council—fifty statesmen, soldiers, scientists and propagandists.

Little incidents reveal a lot. Before the proceedings began my father rose to come to me, but was pressed back in his chair. He tried again, and was actually cuffed into submission. That showed, when you thought of it, the temper of the whole world.

I still wasn't radically different temperamentally from the child who had set out for Venus. I looked different and thought differently, but I was the same girl. I rose with an adolescent's impetuosity and walked across to my father, before everyone. They would have cuffed me too, if they could.

When a man decides to do something, his thoughts are not only in his head, but all around him. I was no telepath—neither, strictly speaking, were the Venusians. I couldn't read thoughts at will, but I could jumble them with my own. No one would ever assassinate me, even in my sleep. I could still reach out unconsciously and muddle any antagonistic thought so that the assassin shot himself or fell stiffly or writhed in agony. I couldn't control people. I could only stop them controlling themselves.

"Why did you send me to Venus?" I asked softly.

"Because if there is an answer, that's it."

"You knew what they'd do to me?"

"The Martians deduced their nature from the history of the solar system and particularly the planet Venus. As they had deduced ours. I knew roughly

what would happen. Phyl—tell me—has it helped? Have you any idea of how to save Earth?"

"Why couldn't you go?" I demanded, ignoring his question.

"Because they would learn all I knew of Mars. Also a great part of Earth's science. From you they could learn very little."

"You knew how they'd drag what I did know out of me?"

He shrugged tiredly. "It happened to me too. When the Martians could learn what they wanted by using a truth serum or their own form of lie-detector or their calculators and analysers, they used them. When they couldn't, they gently probed my nerves so that I screamed and told them what I knew. Like you, I could save nothing."

The council buzzed, ready to start its deliberations, held up by this fantastic conversation between father and daughter that no one else could hear—and by the fact that anyone who tried to break it up collapsed on the floor and squirmed like a crushed insect.

"What makes you think," I said softly, "that I could save nothing?"

His eyes burst into flaming life. "But, Phyl—how could you . . ."

"They tortured you," I said coldly, "and you broke."

He nodded.

"It doesn't seem to have marked you much," I said, surveying him casually.

"There's not a sign. They knew too much about medical science, among all their other sciences, to have to mutilate me. Just a touch on a switch . . ." He shuddered.

"We on Earth don't extract information from people like that," he went on. "We aren't cold enough. We make people talk under truth serums, and the conscious mind isn't able to sift and interpret. We torture sadistically, and men die under the interrogation. They know they have only to last long enough, and they've won. But I knew I wasn't going to die. It was going to go on . . . And when the Martians had what they wanted, they went on to make sure. I searched my mind for something to tell them, something that might interest them. At last when there was nothing left that I could say, they stopped. You couldn't have taken that, Phyl, and kept something back?"

I turned away from him and went back to my seat. It was cruel—almost as cruel as his sending me to Venus, knowing what would happen.

That conference lasted twelve hours. My father repeated, apparently for the hundredth time, almost all he could say about Mars. The Martians were bipeds, cold-blooded, a versatile life form. They could live on their own planet, on Earth, probably on Venus. They could limit their numbers or multiply rapidly at will. They intended to come to Earth in a few weeks' time and take it over. Just like that.

Their science had missed space travel, but it hadn't missed much else. Unlike the Venusians, they wouldn't come in ships that were simply copies of his own. They would come in vast ships with ten times its speed.

"And why," asked someone, "did you send your daughter to Venus—giving us a second enemy when one was more than we could handle?"

The interest that followed this question showed it was one which my father had previously refused to answer.

But he was ready to answer it now.

"Because," he said, "the Martians are afraid of the Venusians. They kept no secrets from me, their purpose being, as I've told you, for me to return and tell all I know, when we should surrender to the Martians and save fighting. But remember, as theorists they are in a class utterly beyond us. They knew exactly what Earthmen were like, long before they had what we should consider evidence. They also knew the nature of the Venusians, without ever having had any communication with them. And while we represent no problem to them, they feared what might happen in a clash with Venus. They feared the material and hypnotic power of the Venusian mind.

"So, ready to try anything to save Earth, I sent my daughter to Venus—to give the Venusians space travel, though she didn't know that was the purpose."

"And what do you suggest now?"

"Surrender to the Martians."

His first word was delivered in silence, but the rest was swallowed in a roar of anger. He jumped to his feet.

"Hear me out!" he shouted. "If we surrender to the Martians, we shall be partly outside this conflict which must now take place. When alien races meet, there can be no co-operation, there must be a fight for survival. I've discovered that. If we surrender, the Martians must protect us, or lose all benefit of our surrender. Their struggle with the Venusians may go on for years, even centuries. And all the time we shall be developing, under Martian authority perhaps, but never given their full attention. We may achieve something in centuries that we can never accomplish in a few weeks."

There was silence after that as the delegates mulled over Jim Price's suggestion. It left a bad taste, but it was undoubtedly a plan worth considering, even if only to be rejected. It offered more than any other course.

"We haven't heard Phyllis Price," said Colonel Thurmer. He was one of the men who had been writhing on the floor after an injudicious attempt to get near me. Perhaps because he was young and strong, he had recovered sooner and more completely than the others. He had been watching me, I had observed with not unnatural interest, with attention that wasn't purely impersonal.

I rose. The Venusians hadn't made me any taller so there was nothing commanding about me as I stood and surveyed them.

"My father is right," I said. "I can offer a little more if his suggestion is followed. You saw a few minutes ago one of the effects of what the Venusians taught me. Perhaps I should explain how it came about.

"The human mind has potentialities far beyond its normal use. We knew that long before the Venusians told me. One of its curious facets is that human beings can do almost anything they believe to be possible. You've seen time and again how a thing is thought to be impossible. Then someone does it. Soon scores of people have followed him. There are cases in athletics, mountaineering, psychology, musical technique, aerobatics, surgery, almost every field we've developed. The impossible often becomes possible not because of new discoveries, but because we know that what has been done once can be done again.

"This is a capacity," I said, deliberately underlining my words, "absent in both the Martians and the Venusians. Am I wrong?" I asked my father directly.



"No, I don't think so, but . . ."

"It was because of this that the ordinary child who set out for Venus—forgive my lack of modesty—became something rather special. I think I managed to hide two things from the Venusians. One was the fantastic extent of my mental development once I had seen what could be done by mind alone. I have only started to develop, I admit, but I can see nothing to stop me going on. I believe that in a matter of weeks, I personally will have nothing to fear from Earthmen, Martians, or even Venusians. That's something I don't think the Venusians could have counted on. They knew we had greater potentialities than we can call on, but they didn't see how easily and quickly they could be tapped.

"My point is this. In a few years I shall be the equal of a Venusian mentally. By that time I'll be able to impart my abilities to others, as they did to me,

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accidentally. It will be slow, and only a few at a time can be handled. But in fifty years, perhaps less, Earth won't be defenceless. It will be growing towards equality with the Venusians—perhaps superiority—and will already be capable of dealing with a purely materialistic race like the Martians."

"And the other thing?" demanded my father.

I smiled. "You don't think I kept it from the Venusians merely to tell it to everyone here, do you?" I said mockingly. "The Martians would have it out of you in five minutes."

There was uproar again. But I saw Colonel Thurmer slowly nodding, and my father grinned faintly. I waited for the noise to die away, then said: "It's a simple little thing that everyone here should be able to see for himself, but which the Venusians couldn't know and the Martians would probably never think of. It might be of great value to us and it may be a complete disappointment. If any of you think of it, I think you'd be well advised to keep it to yourselves."

There was a great deal more discussion, mostly repetitive. When my father made another plea for surrender, Dr. Lindrum, the atomic scientist, snapped at him: "We know you are a renegade, Price, sent back to demand our surrender. That invalidates your plan. Probably every word you've said was by the instruction of the Martians."

They said the same thing over and over again, Price and Lindrum, during the next few weeks.

Someone else asked. "How do we know that there are any Martians or Venusians? We have only the word of this man and his daughter."

My father smiled grimly. "You'll soon know," he said.

I refused to demonstrate further the new abilities I was developing, and even refused to tell them about them. "In a few months at most," I said, "the Martians will learn all you know. It's no part of my plan to have them know that they have only to kill me and a potential source of danger is gone."

"But they will know that anyway," said my father. "What you've done and said already will be reported in detail to them soon after they arrive—whatever anyone here may think."

Uproar again, and shouts of "Yes, by you."

"True," I said, "but I won't be here. And nobody will know where I am. But I don't want the Martians to know much about me, nevertheless."

It went on and on—and not only that conference, but others like it. My father always said the same thing, and usually I said very little. But in between conferences I talked with him and learned everything he knew about the Martians, including all the tiny details that he had never told anyone else—the details that completed the picture. In return I told him nothing.

"You don't trust me very far," he said wryly once. "You're right, of course. How did you manage to keep anything from the Venusians? They were quite horrible, I suppose?"

"Not deliberately," I said. "Just incidentally. It might have driven me mad, but as it happened it didn't. They were just—curious. How did I keep things back? Sometimes I think all women are stronger than men. At the beginning I just put two things away in a safe in my mind, and later when I was telling everything I knew they weren't there to come out. I had realised that telling them wouldn't make things any easier for me. So I hung on to them."

"Couldn't they probe your mind?"

"No. It's like that convenient lie about hypnotism—you know the one—no one can ever be made to do something he believes to be morally wrong. Only this isn't a lie. No one can ever read another person's thoughts unless he co-operates. Race doesn't matter. Nor intelligence. It was no easier and no more difficult for the Venusians to probe my mind than a Venusian's. I could read your thoughts, but only if you let me. When you're talking to me, I get stray thoughts. The only other things that ever come through involuntarily are strong intentions. I'd know, for example, if you decided to strangle me. You wouldn't get far."

"Does it have to be you?" he asked. "I mean, would you know if I decided to strangle anyone else?"

I nodded. "That's a pretty powerful thought. You can conceal most things, but not that."

So he knew. He knew that when a few weeks later the whole defence council was on location, so to speak. We were viewing progress at an atomic defence station. Dr. Lindrum was showing us round. Curiously, he and my father were the two main forces pulling the council in opposite directions. My father plugged his one theme—surrender. Dr. Lindrum plugged his—fight the Martians. Atomic missiles might not beat them, but they would show Mars that Earth wasn't a pushover.

The set-up was so simple it was strange that no one saw what was going to happen. Dr. Lindrum was the one man who could enable Earth to make a fight of it. There was so much in his mind that no one else knew. Yet as we stood there no one moved for long seconds as my father seized his chance and grasped Dr. Lindrum by his thin, yellow neck.

It seemed minutes before anyone else moved, while my father's veins stood out and Lindrum choked. At last they tried to drag Jim Price away, then hit him on the head, but his grip never relaxed. He held on long after Lindrum was dead.

As they led him away he looked at me. He knew I had known what he intended to do. He knew, too, that I could have stopped him. I had done nothing.

I saw him once more, after the trial, a few minutes before they shot him. "I was right, wasn't I?" he asked.

"It was necessary," I agreed. "Earth must surrender now, or put up so little resistance that it will amount to surrender. And that will give me a chance. Lindrum was so sincere that the only way was to kill him."

I realised how cold and inhuman my thought processes were becoming. But in coldness and inhumanity there was strength. My father seemed to sense it.

"It's curious," he said. "I *know* you'll win. You, Phyl, not Earth. What an incredible creature you are now. You must be right about the Venusians—they couldn't know what they were doing. They'd never have let you go."

"They had to let me go," I said. "They must follow their rules of ethics. I brought them space travel, which they wanted. It was impossible for them to kill me or keep me prisoner. They owed me something, and they haven't finished paying it."

"This secret of yours, Phyl," he said. "Is it something to do with their curious ethics? Can you put them in Earth's debt? Do you mean to make it

impossible for them, with their ethical rules, to harm Earth?"

I shook my head. "We could never do enough for them," I said. "That's not the way. It's simpler than that. If it works."

"Can't you tell me—now?" he asked.

I looked at him—a man who was to die in twenty minutes. "I'm sorry," I said. "You might get a reprieve. They might realise even yet that you're no traitor, only a man who does what he believes is right. Even if that entails sending his daughter to hell or killing one of Earth's greatest scientists. This thing—the Martians mustn't know it. They must never know it."

"I see the Venusians as our friends," I went on thoughtfully. "It could happen. With the Martians it can be nothing but war."

He looked at me steadily. "I suppose I should bless you or wish you good luck or something, Phyl," he said. "But it wouldn't mean anything to you. You've put human feelings behind you, haven't you? You're not really human any more."

"I could be," I said. I thought, involuntarily, of Colonel Thurmer. "I can switch it on and off. But you're right, it's off now. If I switched it on, I'd cry now, and that wouldn't help either of us."

He said casually: "You could stop them shooting me, I suppose?"

I had hoped he wouldn't say that. Yes, I could stop them, theoretically. There was nothing to prevent me, except the knowledge—that inexplicable Venusian ethical prompting—that I had no right to interfere in this case. That I could call on vast cosmic powers for many things, for war or for peace, for life or death, but not for the life of Jim Price. I said nothing, and nothing more passed between us.

After I had seen him die—and he died as unconcerned as I expected—I made my way to the space ship and checked it. It was ready for flight. I might have gone then, but one of the guards came to me and shouted wildly in my ear, though I was only a foot from him.

"I hear you," I said soberly. "I'll go in the ship. It's faster than any plane."

The Martians had come—or perhaps it was the Venusians. They had annihilated Liverpool, presumably as a demonstration of their power. Liverpool was a cloud of settling dust. The Martian casualties—one ship, caught by a blast of air that even the greatest theorists had failed to predict. They would be more careful next time.

The military thought for some unknown reason that the attack was by the Venusians, but I thought it vastly improbable. A city devastated by the Venusians would never be a cloud of dust. It would be a curious, twisted wreck with all its atoms fused by nothing but Venusian minds, or more likely, an unharmed city with mindless thousands squirming in its streets. The Venusians couldn't destroy anything. They could only modify it.

I was there in a matter of minutes, talking, of all people, to Colonel Thurmer, who had flown from London. Before him was a strange red heap.

"No," I said. "That was no Venusian. It's Mars all right. They'll be waiting now for a radio message of surrender, I expect. Or perhaps they're on their way to destroy Paris or London."

"If only Dr. Lindrum were alive," said Thurmer, staring into the sky.

"You think that would help—after you've seen this?" I smiled without mirth. It was the first time I had talked to him alone. There were hundreds of people hurrying about us, but we were alone.

"Then you think it's hopeless?" he said. He was not a man on whom inaction and hopelessness sat well. He would never believe anything was hopeless.

I gave myself a few seconds as a young girl and looked at him. Perhaps he sensed the difference. We stood in the metaphorical shadow of dead Liverpool, a stocky, fair-haired young man in uniform and a small, impossibly beautiful girl in soiled but neat overalls, and wondered if there was such a thing as a future for us and for our world.

Then I came back from my short holiday, and as before, he knew it at once.

"Do you want to see what's left of the ship?" he asked.

To Thurmer I was something of a god. He had once felt the lash of my mind. He bore no malice, only a deep respect for my abilities. He thought I would merely glance at the wreckage of the ship and reconstruct the whole mechanism in my mind.

I smiled faintly. "I'm no scientist, colonel," I said. "Not that sort. I'm almost a Venusian and machines mean nothing to them. All I know of machines I learned here."

"You're going?" he asked, as I turned.

"To Venus," I said.

A shadow came over his eyes. "You're not running out on us, general, are you?"

"You think I'm a coward, going to Venus? I'm wondering if I'm not being foolishly heroic."

His eyes lit up with irrepressible hope at the idea that I might be able to accomplish something. But the girl who found pleasure in gazing into young colonels' eyes was asleep again.

I sat before the controls in the space ship for a long time in indecision. No Venusian could harm another Venusian. But was I strong enough to rank with them yet? I didn't doubt I would be in the end. The trouble was, I didn't want to wait another five years, a year, even a month.

It was as a human that I decided at last to go. A Venusian would have waited until he was sure, even if it had been a hundred years.

I didn't land near any Venusian city. In fact, I landed as far from civilisation as I could. I stayed in a Venusian jungle for a week. Then, feeling like a gambler risking everything on one throw, I made for the city where I had been interrogated. Its name was the fourth letter in the Venusian alphabet, so I may as well call it D.

They were surprised that I had returned. But immediately, before I spoke, they had begun to comprehend the position.

"We underrated you, Phyllis Price," said a Venusian. I never knew them as individuals—not until afterwards.

"Yes," I said. "I want to demonstrate how much. I think you'll find it interesting."

"Of course." Elucidation of a mistake was always interesting.

"You will obviously destroy the Martians. It will be necessary for self-defence."

"That may or may not be the case."

"I have learned a little about them and assure you that it is." Their minds were probing now, but I felt no danger to me. Presently they would try to

modify my brain and body. That would be the real test. I still didn't know whether I could withstand them or not.

"I think," I went on, "that it would be best if you concerned yourself with the Martians entirely and left Earth alone." That was the formal announcement of my position. We were using Earth language but Venusian convention.

"You have reasons?" That was also formal.

"I came prepared to show you one. But first please finish the preliminaries. If I am still too weak to withstand a mental assault, it would be as well for us both to know."

There were nine of them present now, facing me like planes on a tarmac. The one I was talking to nodded, imitating the human gesture.

There was a vast invisible, inaudible battle. No one moved, but ten minds worked at full pressure. Nothing happened. My mind swelled in triumph. They could never harm me now. Not one Venusian, not a thousand of them. Even if they tried to overwhelm me physically I could hold them off. The leader recognised the fact.

"Yes, we underrated you," he admitted. "As a matter of interest, since you are now out of our power, have you already reached your limits?"

"No. I expect that to take about five Earth years."

"So we gained nothing from you. You realise the debt is paid, and we would now destroy you if we could?"

"I realise that." What he meant, of course, was that my development invalidated the gift of space travel to them. "I came prepared to offer you my aid in return for yours. It can be, I think, a good bargain. I'll be able to give you a great deal of assistance."

"In return for what?"

"Defence of Earth against the Martians."

"And your inducement? Your weapon? What you would call your ace in the hole?"

I smiled bleakly. "You are unfortunate," I said. "It's something you could hardly know about. I can destroy you. I thought of it while I was still the simple creature you first knew. It was only a guess then. Now it is certainty." I showed him something I had carried in a pocket of my suit.

"Beautiful," he said. "An Earth flower?"

"A daisy," I said. "This is a rose. And this a tulip. Beautiful, as you say—but deadly. They grow easily. They grow luxuriantly on Venus. I have tested it. In this warm, moist atmosphere, with your rich, thick soil, they grow visibly—twenty times as fast as on Earth. They choke your own vegetation, and grow through it. I have only to drop a few seeds here and there and in a year or so your whole planet will be choked. You can never keep it under control."

"Hardly a deadly weapon."

"Our flowers," I said softly, "breathe carbon dioxide and exhale oxygen."

There was silence filled with agitated thought. "You have no machines," I said. "You couldn't fight it. In a year you could not live on your own world. In a hundred years Venus would have an atmosphere like Earth's. We could live here. Not you."

There was no expostulation, no pretence. You don't have to be dramatic with the Venusians. They knew they were beaten.

"You are right," said the Venusian, "we are unfortunate. It is the one

thing we cannot fight. We could destroy whole vast areas of vegetation. But if it grows as you say, that would not be enough."

"I would need more than a bluff for such confidence," I told him.

"So I believe. Very well. It is clear we must do as you say."

It was a great, but somehow empty, victory. The Venusians didn't dramatise either. They weren't even angry. I had a good argument. I was enough of a Venusian to look at them with a kind of sympathy. It was a victory won by luck. I had a lot to make up to the Venusians. I meant to do it.

There would be others like me—humans with Venusian powers. I saw no reason why I should be alone. I thought of Colonel Thurmer with powers like my own, working with me as an equal, a companion . . .

Companion—well, that was one word for it.

THE END

THE LITERARY LINE-UP

Author A. Bertram Chandler, signing the Visitors' Book at London's White Horse Tavern recently upon one of his periodic return trips from Australia—he is First Officer on a crack liner—reminded us of his theory that spaceships will be referred to in the feminine gender, similar to sailing ships to-day. "Jack" also contends that spaceship-board life will also follow this maritime pattern.

In "Pest," his lead story coming in the next issue, he introduces more of this pattern and fills in further details of his own "future" Solar System background, already familiar to readers who have digested his earlier stories—"Position Line," "Co-efficient X," and "And All Disastrous Things."

A new author, Lan Wright, presents "Operation Exodus," the story of a star-ship searching for a new home for Earth's teeming millions before the Solar System is wiped out. E. C. Tubb presents a delightfully poignant Martian story entitled "Without Bugles"—we predict quite a future for Mr. Tubb if he keeps this standard up. Sydney J. Bounds has "A Matter of Salvage," quite a sound space story, and yet another new author, Dan Morgan, appears with "Alien Analysis," a psychological story of an alien planet.

Final ratings on the Summer issue once again placed a short story ahead of the lead novel.

- | | |
|------------------------|-----------------|
| 1. Machine Made | J. T. M'Intosh |
| 2. Hydra | Arthur J. Burks |
| 3. Prison Trap | F. G. Rayer |
| 4. No Short Cuts | E. C. Tubb |
| 5. Ape | Gregory Francis |

The ratings for the Autumn issue will appear in the next issue.

DIGITAL COMPUTER

By ARTHUR F. ROBERTS

Scientists and technicians are not too sure just what will develop from high-speed computing machines. In this article, Mr. Roberts explains some of the mysteries of the recently installed Manchester University Digital Computer.

There are now, in the whole world, six electronic computing machines in genuine operation. Three of them are British.

An accident to the Euston-Manchester *Comet* on the morning of 9th July would have removed many long-standing obstacles to promotion in the computing world. It carried delegates to a conference centred around the fifth of the above machines: the Manchester University Digital Computer. It is, mercifully, thus called; not abbreviated to add to existing alphabetical eczema, such as ENIAC, EDSAC, SEAC, ACE, EDVAC, ORDVAC, UNIVAC, MANIAC and all. Its initial letters are against this.

The delegates came from most British institutions interested in high-speed computing, it being a domestic affair, but many European ones and a few American were represented. Besides the "electronics narks" there were potential users, such as meteorologists and economists, to say nothing of the more lethally inclined. There were even some delegates who had done actual computing.

The Manchester machine, like others under construction, is built round special features. This is natural during a development period when all we know is that electronic computers can be made to work, but not how and for what they will work best. As with typewriters in the 1860's and aeroplanes in the 1900's, there is a flowering of weird and wonderful devices. The fittest will survive.

A special feature here is the "memory"; that is, the organ for storing numbers used and generated in the course of calculation. This is a key feature of any computer. The human computer stores numbers as marks on paper and no-one-knows-whats in the brain; the desk machine, as positions of gear wheels or racks; the relay computer, as perforated card or tape and as switch positions. The first electronic computer, ENIAC of the Aberdeen (Maryland) Proving Ground, stores its numbers as the on or off states of valves. Such methods demand a colossal amount of equipment, assembly and maintenance, the first example included. Non-material images of numbers are therefore sought after. One such is the mercury delay line, where numbers are kept circulating as patterns of pressure waves down

tubes of mercury. Many uncompleted electronic computers—that is, most of them—have it in one form or the other.

One disadvantage of the delay line is the waiting time for the pattern to come down the tube and be read. This is rather long, about a thousandth of a second for the equivalent of 150 decimal digits.

The Manchester device is ten times faster than this. It can read or write up to the equivalent of 380 decimal digits in 240 micro-seconds (a micro-second is one millionth of a second). The apparatus is like a small television set, with the faint difference that the image is completely obscured by a metal plate. A cathode ray beam paints a pattern of dots representing the number. For sundry recondite reasons¹ the beam can be made to sustain the pattern as long as it is needed, and the time pattern of the voltages required to sustain it can be detected, amplified, and used as a number pattern elsewhere. Patterns can be erased and new ones written. These tubes are called "Williams' Tubes" after their designer, Dr. F. C. Williams.

It is not obvious that the best way to store less than one-fifth of one page of an ordinary mathematical table is to use a device about half the size of a domestic television set, and almost as complicated. Probably it will not survive as a standard device. But one must be fair. Consulting a book at the same rate as a Williams' tube would consume one hundred horsepower just to turn the pages fast enough. Also, even if the printed page be mistakenly judged a simple device, the apparatus needed to see and interpret it is nothing of the sort, although supplied and installed gratis.

Nevertheless these tubes are very elaborate and far from immortal. So only eight are used, numbers not needed in such a hurry being stored on a magnetic drum. This is like the familiar magnetic sound recorders, a nickel-coated drum being used instead of tape or wire, and instead of one read or record head there are two hundred and fifty-six. Each of these heads can read or write at the rate of thirty thousand decimal digits a second, but the whole drum can hold only the equivalent of two hundred thousand decimal digits; forty pages of a normally printed book of tables, say. Not too good, especially as it takes a thirtieth of a second to consult the drum. This makes the computer like a person who is restricted to forty pages of tables five miles away, is allowed to use a pedal cycle, and also to copy not more than a page and a half of data at each visit, handing back (and forgetting) any data copied previously. Moreover, his initial instructions are not given to him at once, but only after passing a separate Act of Parliament for each instruction. The results of his calculations are passed on to the outside world only after another series of Acts of Parliament.

This last peculiarity comes from the fact that input of instructions to the computer, and output of its results, are by standard teleprinter which writes four thousand times more slowly than the magnetic drum, and half a million times more slowly than the tube.

There are printing devices faster than teleprinters, but not all that much. The difficulty is fundamental. Information can be communicated as changes in power level, and extremely small changes at that; hence radio. On the other hand, to produce permanent and legible records, somewhere somebody must move material objects, be these typehammers, tape perforators, magnetic wire or pieces of photographic film. To do this very fast raises completely new technical issues before the purely computing aspect has

really begun to be solved. Therefore electronic computers confine themselves to very special problems; those that need little initial information, even less in the way of final results, but a colossal amount of working out in between. An obvious problem that fits is that of gunnery. Given the conditions of firing, or dropping, or launching, and data about the missile and the atmosphere, to find the path of the missile. The amount of calculation needed to get each point on the trajectory is ghastly, but only the final numbers giving the position of the point have to be fed out, and the output arrangements have some breathing space in which to make up arrears. It was for this problem that ENIAC was built during the war, its output being punched on to standard Hollerith cards, and thereafter printed by standard punched card machines.

Relatively few important problems are like this. Most need a lot of initial data, a lot of arithmetic, and a lot of output. These must wait a little, but there is another class of problem within reach. Those where the results are wanted only for inspection, so that ephemeral or fading output, as on a cathode ray screen display, is enough. The basic difficulty comes up again here in the problem of what kind of animated diagram the human mind can assimilate quickly enough, if any.

The almost cosmic difference in time scale between Providence, in the form of the operator, and the ultimate agents in the machine manifests itself in many ways. Suppose, for instance, the operator stops the machine, even for a second, to see how things are getting on. The effect is as if a works manager shut down the entire factory for nine months because he wanted to speak to a foreman.

Similarly, instructing the machine—*programming*, as it is repulsively termed—is not as simple, and cannot be as simple as much of the computing world at present hopes. In ordinary human terms the problem is that of a girl, equipped with a desk calculator, but with no initiative whatever. She is, however, industrious and reliable, and will do all, but only all she is told. She has no previous experience whatever, except for a few logical and arithmetical conditioned reflexes, and her memory is so bad that everything must be written down (in fading ink!) as it is worked out. Finally she will understand the instructions only if given in a special language. This language does not contain the phrase "*You know what I mean.*"

You then have to instruct her so completely and consistently that she doesn't have to come back for further instruction for two and a half years.

It is one thing to give instructions; quite another, as some administrators forget, to see that they are carried out correctly. Quite new technical and logical techniques are developing to deal with the problem of self-checking automata. The Manchester machine is well endowed with means of checking correct operation automatically, and of indicating sources of error and position of faults. Even then replacement of a valve, say, is equivalent to shutting down a factory for over a year. The reliability demanded of valves in electronic computers is just a little beyond current technology at the moment. What is asked for is the reliability of a long-lived human computer who makes not more than one mistake every two centuries.

Cold cathode tubes and crystals are no more reliable, though the last are far more compact. SEAC, the Bureau of Standards Eastern computer in

Washington, uses eighteen thousand germanium diodes. Workers on rival machines claim that, through ignorance, SEAC was fitted at first with eighteen thousand pots of germaniums. Incidentally, her West Coast sister, SWAC, in Los Angeles, is attempting the automatic translation of scientific German².

Possibly some of these comments have made readers think that electronic computers are not much use, and that most talk about *Electronic Brains* is so much hot air. The last thought is correct, and much responsibility for the state of affairs lies with technical folk, not journalists. The first conclusion is false. Computers of this kind are not all they are cracked up to be, and they are colossally expensive. Nevertheless they are of far more use in practical computing than aeroplanes were in practical transport round about 1912. To-day we see the dawn of electronic computing, not its high noon. The dawn of the electro-magnetic relay computers came before the advent of Mr. Sherlock Holmes, so it is no wonder that most automatic computing is done at present on relay machines.

Probably the brightest feature of the Manchester Machine is not so much the ironmongery, but how it came to exist. The logical design is due to Dr. Turing, the symbolic logician responsible for the National Physical Laboratory's ACE; the electrostatic store to Drs. Williams and Kilburn; the engineering to Dr. Lonsdale. Professors Newman and Blackett, for the University, backed up the project for a computer intended for pure mathematical and logical problems. The Royal Society advised the Treasury that money so spent would be well spent, and the Treasury responded generously within three weeks. Because the Royal Society has neither the machinery nor desire to place contracts and so forth, the Ministry of Supply did this, and also put people and establishments on to research and development. The National Research Development Corporation—the State body that exploits patents in the national interest—which is keenly interested in computers, lent a hand in commercial, legal and financial matters. Ferranti's, a local firm in close touch with the University, dealt with the production engineering.

This co-operation of individuals, private and public enterprise, of pure science and commercial production, for an end that will show no immediate profit or glory, is quite typical of this country, and nothing to be ashamed of. We don't know how high-speed computing will develop, but we know it should be developed. We don't even know what its main effect will be.

The major effect of the typewriter, it may be recalled, was to emancipate women.

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NO HERITAGE

By GEORGE LONGDON

The logical way to colonise a planet would be to get rid of the local inhabitants first—sterilise them so that they die off in a few generations. Then just walk in.

Illustrated by QUINN

"Yes," said George Kiccone, "I'll go straight over."

He replaced the phone receiver and leaned back in his swivel chair, a frown drawing down his thick black brows. His gaze rested on the girl who had patiently waited, a shorthand pad in her hand, but he did not see her close-clipped corn-tousled hair or the enquiry on her symmetrical face.

Betty Magee tapped the pad with a pencil.

"Anything important?" she asked.

Kiccone started. Betty was more than a mere secretary and one day soon their relationship would be quite different, though probably she'd still want to work with him. He shook his head.

"I can't say. It was Hendricks' News Agency. You know they get on to me as soon as anything off the beaten track turns up. They seem to think I'm an authority on everything."

He stretched to his full height, yawned, took a cigarette from the box on the desk and made for the door.

"You'd better come too, Betty. They'll look for an authentic story signed by yours truly."

London baked under a hazy blue sky. Kiccone drove without speaking, going over the facts Hendricks had passed on. They were few enough. It might even be a hoax. It would not be the first time he had gone to check on a possible story, only to find a fraud not worth half an inch in a back column.

"Some man rang in saying he's seen bubbles floating down," he said abruptly, conscious that Betty's curiosity hadn't been satisfied.

"Bubbles?"

"Yes, that's the word he used, Hendricks said. Bubbles, big as a man's head, dropping down from nowhere."

He left it at that and accelerated through the congested traffic. No use arguing, he thought. Speculation was wasted effort when another ten minutes would give them the facts.



He reached the park gates and turned in. A little knot of people stood near several waiting vehicles and a lanky, hawkfaced man detached himself, to drift towards them. Kiccone got out.

"Hendricks himself. Must be something special to stir him."

Greetings over, Hendricks led them away and through a wooden gate. Kiccone noted an attendant guarded it, letting them by with curious glances. They emerged into a lightly-wooded area where cool shadows dappled the green. The city and its scurry seemed very far away. Kiccone stared round.

"Where's the show?"

"You'll see soon enough." Hendricks led them on to a group of trees beneath which a man in blue trousers waited. "We've kept it pretty quiet and unobtrusively held the public off. Seigler here's got brains. He'll tell you all he saw."

The man came forward hesitantly. Hendricks nodded.

"This is George Kiccone. You'll have seen his name on many a scientific news paragraph. Tell him everything."

"There's little enough," said Seigler. "When I'm free I often come here for quiet. I was having a smoke in the shade when these things come down."

"What things?"

"The bubbles, Mr. Kiccone. Leastways that's what I thought them. Big as a man's head."

"I see. Meteorological balloons, perhaps?"

"No, sir. They dropped quickly."

Kiccone raised his brows. "Show me. Any planes over?"

"No. Not a sound within miles. I was dozing, like, when down they come." Seigler led the way among the trees, stopping to point dramatically. "There!"

Kiccone walked round the object indicated. It was a sphere eight to ten inches in diameter and of a gold-paint colour. Kneeling by it, he touched it with fingertips. It was cool; nowhere was there any mark or irregularity.

"What d'you make of it?" demanded Hendricks.

"Don't know—yet."

Kiccone rolled the sphere over and grunted. It was light as the merest wisp of thistledown. The underside was equally featureless. He squatted back on his heels.

"And this *dropped* down?"

"Yes. Heavy as lead. Plummited straight from the sky like a cannon ball."

"What about the others?"

"I only saw one more, sir. It's behind the trees. It's just the same."

It was. Kiccone felt baffled. He cursed the heat, mopped his brow, and went back to the first. Betty fanned herself with her notebook, open at an unmarked page.

"Any observations from the great George Kiccone?" she said.

"Nothing you can't write. You know the stuff—'The two spheres found in Regents Park at midday are still a mystery, pending further examination . . .'" He glared at the object, glimmering like a gigantic marble on the grass. "Better have someone with a van collect them, Hendricks. Dump one in my back room. I'll send you a report on it as soon as I can."

Hendricks looked sulky. "Don't forget our deadline."

"I shan't. You'll get my copy in time to run it—even if it's only to say I don't know what the spheres are!"

Back in the workshop that had once been office rooms, Kiccone checked routine business with many a glance at the clock. When a workman came he ordered that the box he carried be put on a bench, and locked the door when the man had gone. Betty sat beside the box, swinging one foot, as he flung out straw packing.

"Why the secrecy, George?"

"Because we've got something here very queer indeed. Seigler was telling the truth. Other reports say they fell from the sky—yet they're only heavy enough to *drift*."

Heaving the box over, he lifted the sphere to the bench. It shone with a burnished glint and might have been a solid globe of metal but for its almost

utter weightlessness. It looked like brass or gold, and yet like neither. Experimentally he tried a file on its surface and grunted. The tool made no mark.

He held it against an emery wheel. The wheel shrieked, smoked, and flung sparks and dust. Afterwards they could not tell which part of the feather-weight sphere had been attacked.

Kiccone wiped his brow.

"It's the hardest thing I'll see this side eternity ! We'll try acids."

They did, and afterwards he broke the point of a diamond drill without effect. He was wondering what the next step was when the phone rang.

"This is Hendricks." The voice sounded taut. "Expect you've been busy and haven't heard what's happened."

Kiccone grunted assent, glancing at his wrist. To his surprise he had been trying to crack open the sphere for well over an hour.

"Then expect a shock," continued Hendricks. "These things have been falling everywhere."

"*Everywhere !*"

"That's what I said. Every cub reporter's sitting on one and the police have got tired of handling messages reporting them. I've had a man out checking. They've fallen in the city and round its outskirts. They seem to be moving in a belt. Hyde Park is full of them and they're floating down the Thames in shoals. Reports have started coming in from neighbouring towns." Hendricks paused. "What d'you make of it ? What you say on the one you've got will make front pages. You've got half an hour to deadline."

Kiccone snorted. "I'll let you have what I can, but it won't be much."

He returned to the bench to find Betty bending so that her hair brushed the sphere, one ear on its surface.

"It ticks," she said.

Kiccone listened. It did. But it was no ordinary tick. The noise, very faint, was so rapid it might have been a whirr, yet it still retained the characteristics as of a watch going at enormous speed. He felt increasing respect for it.

"Might be worth while X-raying the thing. We'll test it for radiation, too. Get Don Regan and have some coffee and sandwiches sent in."

They were still trying without result to find some means of opening the sphere, or determining its contents, when lights and signs began to spangle the streets outside. To the far west, the last rays of the sun shone on other golden globes as they flashed down to Earth, to touch without the slightest concussion and lie still.

As the hours passed they spread westwards over the Midlands and Wales. Soon they bobbed everywhere on the Atlantic and before dawn returned to London, New York had been liberally sprinkled. Some came down in towns so that the inhabitants gazed, pointing excitedly; some dropped through forests, bouncing from twigs and slipping off boughs. They sank to rest on soft desert sand and rested like down where deep snow lay, spreading west as the Earth turned. Every sea knew them, and the planet's icy poles, though here no day came to show their presence.

After two hours' sleep Kiccone stirred himself and found it was dawn. Betty, fresh as if she had slept twelve hours, had just admitted Hendricks. Hendricks looked as if he had slept not at all.

"The world's covered with 'em," he stated.

Kiccone shook the sleep from his eyes. "Has anyone found what they are?"

"No. Wires have been humming and every paper has a different opinion. There isn't a town or country which hasn't reported them. Luckily they seem harmless and folk haven't panicked."

"Harmless; I wonder." Kiccone got up. "How many have landed?"

Hendricks shrugged and left the chair into which he had dropped.

"The devil knows! From information I've been able to get they seem to drop at intervals of a few miles. Some are closer, like the two Seigler found. The number striking Great Britain in the night must run into hundreds of thousands. Radio reports from every European country and America say the same. Asia got its dose last of all. If we find some place they haven't landed that'll be news."

Kiccone whistled. He had not anticipated anything as big as this. From a local curiosity it had grown to a world affair. The Earth might have been a peeled orange over which some hand had sprinkled sugar as it turned.

"They came from space," he said. "There can be no doubt about that. But to what purpose?"

No one answered. Followed by Hendricks, Regan and Betty, he stamped through into the work-room. The sphere still rested on the bench, left by Regan, who had said his apparatus could make nothing of it. Kiccone touched the sphere and removed his hand sharply.

"Hello, it's hot!" He caressed the object's surface. Its temperature was too high for his hand to bear and seemed to be rising. When he put a moistened finger on the sphere a sizzling broke the complete silence.

Regan, a wiry young man of thirty, pursed his lips. He touched the sphere in turn and swore, sucking his finger.

"To think it's been dead all night while I've slaved, and starts cooking up on its own now!" he growled.

Without looking at him, Kiccone eyed the sphere. A wisp of straw touching it was beginning to turn brown.

"Better get your gear set up again, Don," he grunted. "If I'm not mistaken things are going to happen now."

He drew back. The sphere was radiating heat which scorched his face and oil on the top of the bench began to sizzle, a wisp of smoke rising. Regan was working frantically to get his electronic spectroscope and counters ready but by the time he had finished the globe was unmistakably red-hot.

"Betty, get out," Kiccone ordered.

He did not look to see if she obeyed. The sphere had become white-hot; the bench frizzled and straw licked into flame. He let it burn. Soon the crate was mere ash and the spherical object that had seemed so harmless was glowing so fiercely they could not look at it. Shielding his face from the glare and heat, Kiccone withdrew through the door. The radiance cast a bright sphere of light like that from a thousand watt bulb after them.

Grumbling, Regan left his apparatus and followed. The reflected glow through the door slowly became blue, then mauve—a hard, harsh light which hurt their eyes even when tightly closed.

Then abruptly the light went out. Kiccone peeped round the door. The metal-work of the bench was red-hot but the sphere had gone. His nerves tingling, he went in. The sphere had been artificial. Therefore from the

point of view of its makers everything had appeared to go to schedule.

But to what purpose?

"So that's what it radiated," said Don Regan, consulting his notes. "Ultra-violet light, a few X-rays, Gamma rays too—in short, everything from about 4,000 AU down, not to mention a lot of heat. The radiations had queer points. They seem to have lingered in the human cell. We're all a trifle radio-active, though nothing dangerous as far as I can tell."

Kicccone nodded, sprawled behind his desk. Three days had passed since the brief activity of the sphere. Reports had come in by the hundred. A few spoke of fires caused; one of deaths as an unsuspected globe burnt its way through a roof. Some told of shallow waters boiling, but on a world scale the loss of life and damage had been effectively zero. A general air of puzzlement and mystery remained.

"I see," he said. "And the range of these radiations?"

"Several miles. More, for the very penetrating frequencies."

Which meant, thought Kicccone, that the whole surface of the planet had been bathed in those rays. The knowledge made his skin prickle. Such radiations could do queer things. He pondered, then took a calendar from his desk and leafed it over. After calculation he drew a ring round a date. Betty watched him seriously.

"What do you make of it, George?"

"I don't know, Betty. But I want you to make a few notes. If there are any cases of radiation sickness, or anything which *may* be along that line, I must know immediately." He rested back in his chair and his voice dropped a tone. "I want you to be on the watch for anything *abnormal*." He showed her the date. "From then on I want a synopsis of birth accounts each day."

She had gone white and nibbled the end of her pencil.

"You—you don't mean *mutants*?"

"I don't mean anything—yet I suspect everything." Kicccone got up and paced round the desk. "Keep a look out for records of the birth of abnormal animals and let me know of anything strange, even if you fear it may prove unfounded. I've a feeling those spheres didn't come just to provide a nine-day wonder."

He patted her shoulder, softening a moment, then beckoned to Regan, who still appeared petrified.

"Come on, Don. We need to know more about those rays, if possible. And more of what they could do."

The months dragged to Kicccone. Interest in the spheres began to wane as they were dismissed as oddities soon to be forgotten. Kicccone did not forget them. Instead, he wondered if the date he had encircled would prove to be a milestone in the progress—or retrogression—of mankind. He feared what that day might bring to the human race, though the appearance of healthy, normal young animals conceived after the day of the spheres was encouraging.

Betty found him petting a litter of puppies he had brought into the office. He did not look up.

"Here are we, married only six months, and you prefer puppies to me," she said in mock complaint.

He kissed her. "Sorry, Betty. Destiny hangs on—that." He motioned

towards the calendar. Only a few weeks remained until the date he had marked. "Anything turned up?"

She lowered her eyes.

"N-no. Nothing anyone can *fix* on. Folk don't talk much about such things unless they *know*. But I've heard a rumour or two—nothing concrete, but things a man probably wouldn't hear."

Kiccone did not press her. He knew that if Betty knew anything definite she would tell him. Rumours he had determined to close his ears against. Yet he found her suspicions disturbing. Disturbed, too, were her eyes. Something in them had died.

He breathed an imprecation.

"If things do turn out for the worst what is the purpose? We're not merely—the subjects of some experiment by the gods?"

Betty did not answer and Kiccone knew she could not. No one could answer that question. Perhaps there was no question. Yet he could not hope that. Soon they would know.

He released her and turned the calendar face downwards. For a little while he wished to forget this dread which would not be suppressed.

But forget it he could not, and when the day came he rose from a restless night. He feared the worst, yet prayed it would not come. Rumours had grown, painting shadows on the faces of the folk who walked the streets. The encircled day brought a trickle of facts; the days following brought more. Kiccone swore often to himself, not sleeping.

"There were no births yesterday," Betty said on the eighth day after the one he had marked.

Kiccone rose slowly from his chair and put his arms round her shoulders. The full severity of the news had dawned slowly over the past week and he was not surprised.

"None—anywhere?"

"Not that we can trace."

Kiccone cursed more vividly than he had done since their marriage, thumping the desk so that the inkwells jumped.

"Offer a prize for anyone who finds a baby, be it white, black or yellow! Get the news into every town and village. If you succeed, inform me immediately."

As the weeks passed Kiccone knew they would not succeed. Folk passing in the streets looked at each other covertly; women talked in little groups, laughter forgotten. From native tribes came news of queer rites and sacrifices to propitiate the demon of infertility which had smitten them. Black, white and yellow set up a wail that echoed round the planet; nowhere was it answered by a new-born babe's cry.

In his office, Hendricks' face was grey. From outside came the machine-gun click of typewriters.

"The human race seems to be utterly sterile," he said.

Kiccone stuck a cigarette in the corner of his mouth and lighted it.

"It is. I hadn't even thought of anything *that* bad. Mutants, whatever their type, would be descendants of man and possibly forerunners of new races. But this—it's a full-stop we can't run past."

He breathed smoke, thinking. When the younger generation died man would be an extinct species. Untrod roads would stretch between empty



cities reaching to skies where no planes flew. The forests would return, creeping as wind and rain eroded the buildings no man now needed; from their depths animals would peer, wondering at the crumbling heaps of masonry.

"We might have saved a few folk from this blight if we'd known," he said pensively. "There was no way to guess in advance what would happen, or that there would be radiations which could modify the human gene so severely."

Hendricks nodded slowly. "And what do you suppose lies behind it?"

Kicccone smoked for a few moments before replying. He had often thought over that problem.

"It was purposive," he said at last. "Purposive on the part of *something* which saw in mankind the sole thing on Earth capable of opposing some plan

Apparently that plan demanded the planet be rid of humanity, and it seems to be succeeding."

He paced to the window and stared out. The sun was shining, yet the city was hushed. There had been no riots, no bloodshed—yet. The catastrophe had drifted up on the average person unawares, first as rumour, then as suspicion, finally becoming scarcely-believed fact. Man was numbed. And there was nothing against which he could turn his wrath.

"How about young people born since the day of the spheres?" asked Hendricks behind him. "D'you think they will break this curse of sterility?"

"I doubt it. The plan of—*them* seems too cast-iron. Time will show."

Often as he looked down through that window, Kiccone feared what it would show. Months crept into sad, sober years. Little children grew up until there were no infants anywhere. Kiccone aged. The last and youngest of humanity—those born in the months following the day of the spheres—were sober, puzzled children who soon forgot how to laugh. Dimly they realised their elders looked to them with eager, frightened expectation, but as yet they knew not why.

Sometimes Betty would put her hand on Kiccone's shoulder.

"I—I'm sorry, George."

He would pat her hand and force a smile.

"So are we all. There's nothing anyone can do except wait and see."

Looking down on the youngsters, he feared what they would see. Months and years slipped past and soon no child was left anywhere on Earth. The town became a city of old men and women who looked at each other furtively, and watched the growing adolescents with ill-concealed hope. They smiled as the first young couples found each other, fell in love, and married.

Kiccone expected nothing and consequently was not disappointed. The few baby-toys and clothes in the shops remained unwanted, a curiosity for passing eyes.

"I'm an old man now, Kiccone," Hendricks told him over the phone one day he was at his own office. "There isn't a nipper in the world." His voice was sad. "Did you ever get anywhere in trying to find out where the spheres came from?"

Kiccone grunted a negative. He had not seen Hendricks for nearly a year. The wheels of life were grinding to a halt; folk made no progress because there was nothing for which to work. Mankind had no future. From his window he could see a thin crocodile of women wending along the street. They chanted a dirge which drifted up like a melancholy sigh and their leader carried a stuffed, lifeless figure—a pitifully crude bundle representing a baby in wrappings.

"There were no clues," he said slowly. "The spheres seemed to have come out of space from one general direction, hitting Earth as it turned. I never saw one drop myself, but they dropped rapidly. The newsreels showed that. Yet objects don't disobey natural laws without reason and they were very light."

"Some attractive force?" Hendricks suggested.

"Perhaps. Again, maybe not. They might have been drifting by their time standards. Suppose they came from a world so utterly alien its very rate of

progression of time is different from ours."

Hendricks considered. "You mean if we parachuted down into a world where incidents moved very slowly, relative to us, our fall would seem as rapid as the earthward trajectory of a bomb to that world?"

"Yes."

"And where does that get us?"

Kiccone could not reply and Hendricks rang off. It was odd that this relative time-disparity should so have stuck in his mind, Kiccone thought. Betty had suggested it. He would go and find her, he decided. Though now quiet because of the sad passing years, her company was soothing. No use to work, when knowledge would die with the last of men . . .

The clamouring bell recalled him. Hendricks sounded unusually stirred.

"New spheres are coming down," he said.

"What?"

"Yes. Those in Hyde Park are the nearest. I'm on my way."

Shouting for Betty, Kiccone ran out. He wasn't so active as he had been perhaps twenty years before when he had first hurried to Regents Park, he reflected. Those spheres had left an almost indefinable radio-activity which had stopped man's fertility. What would the new ones bring?

There was not a great deal of traffic and few people paused to look at them as they sped by. Hendricks had just pulled to a halt near one gate and he led the way into the park with long steps which somehow accentuated his leanness.

"Perhaps things are happening!" he said over his shoulder.

Before he had gone far Kiccone saw a small round object falling from the sky. He noted its direction and ran, but it had landed before he could reach it.

"They're different," Betty said behind him.

Kiccone walked round the sphere. It had fallen with such speed he was sure it must be heavy, yet the breeze which came across the park stirred it and under his touch it moved like thistledown. Resilient as a child's balloon, it did not resemble the globes of so many years before.

Suddenly it gave a *pouff* and he jumped back. The surface had shriven, revealing a mass of blue-green substance like wool. From the ball tendrils reached out, sinking into the earth, then the ball was still.

"What the hell," said Hendricks. "It's a plant."

Kiccone walked round it. It looked immeasurably fragile, a hot-house growth that could be crushed underfoot. As he watched it slowly became a deeper blue-green, which faded in turn to drab brown. Ten minutes after it had opened it was yellow and new bulbs were forming on its stems.

"Better get folk busy killing them—if they can," Kiccone suggested. "But leave this one. We'll watch it."

Rather to his surprise killing the plants proved easy. Roused into a fury by at last having something to attack, bands of men and women scoured the country, pouncing on the tangled brown heaps and crushing them to pulp. Bonfires glinted where someone decided no chances would be taken and lorry loads of brown vegetation sizzled to ashes, sending up thick smoke. Where they landed on the sea fish tore them to pieces in scurrying shoals. Where they fell on desert and snow no rootlets sprang into being; winds blew them

hither and thither until they shrivelled and died, sinking into dust as if they had never been.

In Hyde Park, Kiccone examined the one he had saved. The police had shut the public from that section of the grounds and had allowed a fence to be erected to keep away those who might think the plant a menace. Guards unobtrusively paced the circumference of the enclosure and within the fifty yard area Kiccone watched.

Soon the top of the ball opened and with little snaps half a dozen small globes sprang out. They settled in a rough circle about two yards in diameter and sent down rootlets.

"So it is a plant," said Betty, coming in through the fenced gateway.

"Yes. Quite a lot of ordinary weeds have similar ways of dispersing their seeds when ripe. There's a springy membrane which comes under stress as it dries."

Kiccone's interest increased as the days went by. After the first seeding the new plants came to brown maturity and flung out seeds at ten hour intervals, acting as if that short period equalled an Earth plant's entire season. Where it began to approach the fence he tore the growth up and destroyed it. Soon the vegetation filled the entire area, sending up diaphanous, spindly stems of mottled blue and brown. They were as high as his shoulder and sometimes they seemed to move when there was no wind to stir them.

Hendricks' interest had been waning and Kiccone sought him out in his office. His feet were on a desk and only one typewriter rattled in the outside office.

"Why should I bother?" objected Hendricks to Kiccone's question. "There's no future in it. When I die, the agency finishes. It's the same with everything. The old die off, and there are no young to fill their places."

Kiccone realised Hendricks had become aged and bitter. He turned the subject.

"The plant's not dangerous. It's delicate and easily killed."

Hendricks snorted. "Damn the plant! If you want to bleat about its peculiar osmotic processes you've chosen the wrong man. I wouldn't give you a farthing a line."

"We'll see," said Kiccone, unperturbed. "It may be more than plant alone."

He paused, listening to a sad chant outside. A funeral. Often a whole street of people followed a funeral. They had nothing else to do and knew every man who died could never be replaced.

"Why did those light spheres drop like bricks?" he continued. "There's a reason for everything."

Hendricks waved a skeleton hand. "I don't remember, but you said something about them having a dissimilar time-rate to ours."

"And I do again. If every one of our seconds contained a hundred of theirs an object that took a minute or so in falling, to them, would appear to drop rapidly, to us. Relatively, it would be rapid, and who can deny that such relativity of time is possible? Likewise the slow maturing of these alien plants would appear speeded. And now they are established they seem to be seeding in ten hour cycles."

Hendricks nodded ponderously. "Ten hour cycles. You mean a season of their time fits into ten hours of ours, because ours is so slow by comparison. What of it?"

"I don't know. But it means many alien generations have passed during one of ours, since the first spheres came." Kicccone got off the corner of the desk. "Come out to Hyde Park with me and I'll try to give you a hint. You've nothing to do and I can think best talking."

Dusk was beginning to steal from under the trees and a cool air drifted from the direction of Hyde Park corner and the Palace Gardens. Kicccone opened the door in the circular fence and they stood there, looking in.

The diaphanous tracery of stems seemed too fragile to support themselves in the dim light. They trembled to the breeze like vibrant rising smoke, whispering together when they touched.

"I'm convinced this plant was intended to acclimatise our planet for the beings who are to follow," Kicccone said.

"But they would know we should never let it spread."

"Would they? Maybe not. Suppose we intended to move in somewhere where the vegetation and other conditions were unsuitable. First of all we should need to plant trees, shrubs and grasses. If there were animals there which would destroy those shrubs and grasses we should first destroy them. If the animals were numerous and we were kind-hearted we might shrink from outright killing or causing bodily pain. If so, our best plan would be to render them all sterile. We would wait for them to die out and then plant the vegetation we had chosen to make the area habitable. That's how swamps have been cleared and desert places made habitable by man. I'm convinced that's what's been happening here, except that we're the animal to be eliminated. In us they saw the only creature who could repel them. So they rendered man sterile by a radiation which nullified, but perhaps did not destroy, his fertility. They waited for us to die, then sent plants which would have covered half the Earth by now except for our unexpected intervention."

Hendricks looked fearfully at the spidery vegetation, too dense to be penetrated. "So you expect the appearance of whatever is responsible?"

"Yes. But only where this vegetation is. They need these plants. They might even be something dormant in them which emerges only after a time."

"Then they've failed. We can smash this patch to pulp."

Kicccone shook his head in the gloom. "I don't think that's necessary."

Hendricks stared, his face blanching. "You mean it's best to let them live! That Earth had better be a planet peopled by aliens than a sterile world populated by animals alone!"

Kicccone raised a hand.

"No, Hendricks. Remember the time difference. Remember the maturing and seeding of these things in ten hours? They pass hundreds of seasons to man's one, so the aliens may have made an error. If we were clearing an area in which we wanted to live we should not use something effective for a hundred generations. Nor would any intelligent being. Therefore the aliens may have allowed insufficient time——"

He stopped abruptly. A faint blue light had risen above the centre of the vegetation. It grew until it was yards in diameter, an unearthly floating halo, and shapes began to stream up to it from the plants below. So lightly did they ascend that the thin stems scarcely bent; so rapid were their movements they appeared little more than flashes of shadow and coloured light.

"The last move," murmured Hendricks, the blue light shining on his face.

Kiccone said nothing. Among the plants things moved, dimly-seen and formless. A snake-like shape as of thick smoke came through the stems opposite the gateway and was withdrawn.

"This would have been happening everywhere," whispered Kiccone. "But the plant couldn't live in wild places and man has killed it wherever it touched cultivated fields."

From the centre of the vegetation cylindrical objects as long and round as a man's arm appeared, to float up to the blue circle. They were orange with open, green interiors and they turned slowly, hesitating sometimes, while about their ends a faint radiance played. Somehow he felt the beings were trying to communicate with their fellows, expecting similar activity had begun all over the Earth.

After a while the tubes dropped from view and complete silence returned, unbroken by movement.

"A hundred generations by their time equals a single one of man," murmured Kiccone. "We would not spray a pest-infested house with insecticide for a month, knowing a few hours would do. Or if our fumigant rendered the unwanted occupants sterile it would only need to be effective for one or two generations."

He halted because the circle of light had waxed stronger. The smoky coloured shadows appeared again, rising in great haste. Vaguely he noted he could see through them as through a mist. Soon the clump of vegetation was still. The circle of light grew in brilliance then began to move towards the sky at high velocity. It shone far above them, twinkling, then vanished, immeasurably distant in space.

"They've gone," said Hendricks unbelievably.

Kiccone withdrew and shut the gate. Whence the things had come, they would never know. Whither they had departed, fleeing their solitary outpost, none could guess.

Outside the park all was silent. Kiccone thought of Betty and of the pitiful processions of childless families; of the empty hearts and lack of ambition.

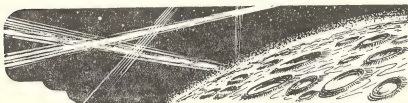
"So that is the end," said Hendricks. "Exit *homo sapiens*—to no purpose."

"I wonder." Somewhere in the distance a man was shouting and Kiccone listened. The sterilising qualities of the radiations could not last for ever. "I wonder," he repeated. "The aliens have miscalculated. They thought they had waited long enough for all men to die. But one generation of us outlived a score of theirs so we're still alive after their whole plan to exterminate us has run its course."

He stopped, gripping Hendricks' arm. The shout was louder—a wild, stentorian cry of triumph, echoing down the road and across the empty park. He smiled as he listened:

"Yip-ee ! My wife's going to have a baby !"

THE END



ENTRANCE EXAM

By E. C. TUBB

Man might not be acceptable to higher intellects in the Galaxy—that is, unless he can prove his worth.

Illustrated by HUNTER

He sat on the floor, his back to the wall, and stretched his legs before him. It was still hot. Banner guessed the temperature to be almost a hundred, and of course they were still sweating. He quizzically stared at the others sprawled around him. The silent figure in the centre of the floor moaned once, then rested quietly. Lacey cleared his throat.

"What's it all about, sir?" He demanded wildly. "Where are we?"

"I don't know," admitted Banner, "but I think that we could make a pretty close guess."

"How?"

"Every action must have a reaction," mused Banner. "Every cause must have an effect. When you sat for your written examination didn't you have one question which needed pure deduction to answer? I assume that it was something like: a Mark II FTL engine, plentifully supplied with fuel, unaffected by external conditions, suddenly cuts out. What has happened?"

"That's right," agreed Lacey. "We did have a question like that, not the one you've stated of course, but similar in pattern." He grinned wryly. "It had to be answered right first time, too."

"There you are then." Banner looked around at the intent faces. "All we have to do is to regard our present situation as just such a problem." He paused. "I think it would be best if I reviewed the position, then if you have anything to add, or if you disagree, speak up. That way we shall avoid repetition, and get a clearer picture. Right?"

They nodded their agreement, and Banner continued.

"We are all crew-members of the *Starbird*, an exploratory vessel of forty-five personnel, on a pioneer mission to the Vega system. We had dropped out of FTL—faster than light—drive and were manœuvring into a survey orbit. Suddenly, in my own case at least, we blacked out and regained awareness in this room. All agreed?"

"I didn't black out," said Benson. "I was off watch, in the sack asleep. Last thing I remember was the warning bell as we dropped from FTL."

Lacey frowned. "I was in the engine room, something attracted my attention, then out."

"Yes?" Banner was interested. "What was it?"

"I think I felt a sort of a jar, it wasn't much but when you work around engines you notice those sort of things." Lacey seemed strangely apologetic. "There seemed to be a faint whine, the lights changed colour a little." He



shrugged. "That's all."

"You said that the lights changed colour. How do you mean?"

"They flickered, turned a little reddish."

"You were working near the pile?"

"Naturally. Why?"

Banner didn't answer. He examined his body, then looked at the others. "Have any of you a bruise? Carter? When it hit you you were on your way to the Bridge. You must have fallen. Have you a bruise?"

They each felt their bodies. Banner didn't bother to examine the sick man, he had been in bed anyway. No one had any bruise or contusion to be expected after a fall. Banner nodded, satisfied.

"As I suspected. I don't think that we blacked out in the usual sense of the word. I think that some form of radiation was used to cut off our awareness. That would account for the slight shift in the light frequency. It also accounts for Lacey not going out as fast as the rest of us, he would be more shielded near the pile."

"The jar he felt must have been another ship making contact. The whine,

sympathetic vibrations from the radiation. One other thing. I personally was not near a port. Were any of you, or did any of you take a look outside?"

None had.

Banner sighed. "I didn't expect to find differently," he confessed, "but it would have been a handy check point."

"But what could have happened, sir?" Lacey's tones were higher than normal. "What are we doing here? Why?"

"Take it easy, Lacey," Banner said gently. "We'll get there. As to where we are, I think that it's pretty obvious we must be on the attacking ship. This room was never part of the *Starbird*. We were in space, well out from the Vega system. I don't feel hungry, and I don't need a shave, so I doubt if much time has lapsed between our blacking out and our awakening here. I felt a vibration from the floor which is to be expected if we're on a ship. Has anyone any objections to that assumption?" He glanced around, but there were no objections.

"So far so good. Our captors must be of a high order of both intelligence and technology. They matched our course and speed exactly. Made actual contact, and did it all without apparent warning. By itself that is unimportant. It merely confirms that they are our superiors in spacial navigation."

"I don't follow," Carter objected. "How can you tell that they are more advanced than we are? Our warning devices may have been out of order. A dozen things could have happened to give them a lucky break."

Banner sighed. "We had just dropped from FTL. To any observer we arrived instantaneously. As not more than half an hour passed between entering normal flight, and the attack, it means either that they were warned and intercepted us, have a close knit system of patrols, or were just plain lucky. It doesn't make much difference, as the fact of their approach without warning to the crew means that their instruments, method of space travel, or even sheer speed of attack, outclasses us."

He wiped the sweat from his face, and began to wish for a drink. "I think that the most important thing however is that they have a very good knowledge of the human body and mind."

Carter snorted. "Now you are going too far. Nothing we have learned justifies such an assumption."

"I don't think so." Surprisingly it was the normally silent Benson who spoke. "I begin to get the drift of the Doc's reasoning." He seemed totally unaware of his lapse from the former "Sir" to the more friendly "Doc." Banner smiled inwardly.

"Carry on, Benson. How do you see it?"

"Well, for any one species to be able to knock out a member of any other species by means of radiation, vibration, or paralyzing beam, pre-supposes that they have studied that race. Why even on Earth we still can't develop a beam that will do more than affect the nerve and brain pattern of any one species at a time, and we've grown up together."

"That's right," agreed Banner. "One other thing. They must have had a pretty good idea of just how well defended we were to make close contact as they did."

He stretched, easing cramped muscles, glanced down and froze into immobility. Eight inches from his right leg, a foot from a wall which he

would have sworn was one solid piece without crack or flaw, stood what appeared to be a paper cup containing some ten ounces of water.

After one startled glance Banner exploded into rapid action. He was on his feet, half-way to the sick man, before the rest had moved, snapping curt orders as he went.

"Lacey ! Come here ! You others examine that wall, and I mean examine it."

He squatted down beside the huddled figure, noting the absence of sweat, the greyish pallor of the skin, the cracked and swollen lips. Lifting an eyelid he frowned at the pronounced colouration. Lacey squatted beside him.

"Help me sit him upright," grunted Banner. "Tilt his head back and get his mouth open."

As Lacey struggled with the dead weight Banner took one quick sip of the contents of the cup. It was water with a slight brackish flavour. He poured a little into the mouth which Lacey had forced open, closed it, and directing the other man to pinch shut the nostrils, rubbed the throat until reflex action caused the water to be swallowed.

He continued to do this, working automatically at a high rate of speed. Lacey licked his lips.

"Does he need it all, Sir ?"

"He'll be dead if he doesn't get it," Banner said curtly.

"Why ? What's the matter with him ?"

"Montell's Disease. Speeded metabolism caused by a virus originating on Venus. Without medical attention he hasn't a chance. This water may keep him going for a while though." He noted the look on Lacey's face. "Don't worry. It's non-contagious and anyway this room is as sterile as an operating theatre."

As Banner worked he noticed that the paper-like cup grew more and more fragile seeming in his hand. Finally, when only a few drops of water were left, it collapsed into a sodden mass. He stared at it disgustedly, squeezed it dry, and flung it aside.

"Okay," he said to Lacey. "Put him down now. Find anything you two ?" He called climbing to his feet.

"Not a thing. It's just as solid as ever." Benson still searched over the smooth surface. Carter had given up in disgust and sat slumped against the wall.

Banner joined him. "Give it up now, Benson," he ordered wearily. "You won't find anything if you didn't notice it at first."

Lacey sat down with a slap of bare flesh. "What's it all about, sir ?"

Banner looked up tiredly. He wanted to be alone to order his thoughts, but he had a duty to those with him. As their superior officer their morale was his concern.

"Why do you think we're here ?" He asked abruptly.

Lacey frowned. "Prisoners ?" he suggested.

"Not necessarily," objected Benson. "We could be in quarantine."

"Hardly likely," Carter sneered. "What about the other forty of us, or are we something special ?"

"Hostages then," suggested Benson.

Banner shook his head. "That's hardly logical. For us to be hostages

pre-supposes that somewhere someone of our race could do our captors harm. Hostages are held to ensure the good behaviour of other members of the nation, tribe or group, of which the hostages are members. As the only conceivable persons who could be interested in our welfare are the other crew-members of the *Starbird*, and as they were in all probability captured with us, it hardly seems likely that we are being kept as hostages to ensure their good behaviour."

Lacey cleared his throat. "Do you think that maybe we're being kept as specimens?"

"No. For one thing if we were, we would have been supplied with food and drink. The main reason, however, is that our captors are intelligent. Intelligent people don't put other intelligent races into Zoos. If they did, they wouldn't be intelligent."

Carter sighed impatiently. "That doesn't leave us much does it? According to logic if we can't find a good reason for us being here, we shouldn't be here. We can't, therefore we're not. Let's go home."

Benson snorted his disgust. "Use your head Carter. This isn't a game, and I don't think it's funny." He appealed to Banner. "Have you figured it out yet, sir?"

"Yes," Banner answered slowly. "I believe I have, and it's not funny, in fact it's far from that. I don't think that I would be wrong in saying that it is probably deadly serious, and I mean that literally." He looked around at their intent faces. "I believe that we're Guinea Pigs."

At that moment the sick man changed his harsh gulping breathing into a series of low moans. Banner winced and hastily raised his voice.

"No other explanation is feasible," he elaborated. "Everything points to it. A break-proof cell. No method of determining the passage of time. No clothes. No contact with either our own people or our captors. Sterile surroundings. Reduced to our basic primevality." He looked around the room. "Laboratory conditions."

Lacey gulped. "But why? Why?"

"That," said Banner quietly, "is what we've got to find out."

Carter chuckled, a note of hysteria in his voice. "So that's it," he gulped. "A game. Truth or consequences. Guess the truth or suffer." He swallowed, and looked shame-faced.

"Not quite a game," Banner corrected gently. "The consequences are liable to be pretty drastic."

Benson licked his lips. "I'm thirsty." He said. No one took any notice. The sick man suddenly stopped his moaning, the silence, if anything, was worse than the noise.

Banner rested his throbbing head in his hands and desperately wished that he wasn't so thirsty. It was hard to think clearly when every atom of his body cried out for water. He thought longingly of crystal clear goblets full of ice water, of foam-capped beer, of the luxury of wallowing in a tub. Irritably he rubbed the stubble on his chin.

Stubble! But he hadn't been here long enough for his beard to grow. Or had he? He cursed the impossibility of determining the passage of time. The utter sameness of the room, the possibility of frequent blacking-out. No wonder he felt so thirsty. They could have been here for hours, days, in a

sweltering heat, in conditions ideal for the producing of thirst.

He looked up suddenly a gleam of triumph in his bloodshot eyes. "Listen," he ordered, and was shocked at the sound of his own voice. His throat hurt and he swallowed with difficulty and pain. Grimly he ignored the discomfort.

"I think I've got it."

The others looked up listlessly. "Got what?" asked Lacey.

"The reason why we're here. Will you all listen to me?" The sharpness of his voice startled him, he fought to get his nerves under control.

"We're an experiment," Banner explained. "An experiment to determine our reaction to a given set of circumstances." He gestured at the room. "I should have guessed it before. Laboratory conditions. A group reduced to a common norm. Carefully regulated stimulus provided and the results noted, filed, and used for future reference." He laughed bitterly. "I've done it myself a hundred times on rats and guinea pigs."

"But what do they hope to learn?" Carter croaked. "I thought we decided that they must know all about us as it is."

"They probably do," agreed Banner. "Physically at any rate, but maybe they want to learn more." He shook his head doubtfully. "I don't think it's as simple as that." He sat for a while in thought. "What would happen," he mused, "if you put a dozen rats in a cage, and only provided sufficient food for one?"

"They would fight," Benson pronounced.

"And if you provided a way out of the cage with ample food at the exit?"

"If it was plain, and they didn't follow it," said Benson dubiously, "then you'd know that they weren't very bright."

"An intelligence test," Banner nodded. "But we know that there is no way out of this room, so the analogy isn't correct." He frowned. "What else would the behaviour of those rats indicate?"

"They wouldn't be civilised," Lacey grunted. "Or they wouldn't fight over one ration of food."

Banner took a deep breath and slowly exhaled between his teeth. "So you see it too, that makes me certain."

Lacey grunted non-committally.

"We can take it that we're under constant observation," Banner said positively. "Every action, every word we speak is either being watched or recorded. What we do. How we do it, is important. Probably more important that we realise."

"But what—" Carter snapped irritably, "What are we supposed to do?"

"Decide who is to live, and who is to die." Banner said calmly. A sigh echoed through the room.

It was the sick man. Banner hadn't forgotten him, but the sheer inability to give him aid or comfort had forced him to shelve the problem he represented. Now he stepped across to him, did what he could, and resumed his uncomfortable seat against the wall.

"You see," he continued calmly, "it's this way. There are five of us here, four well men, and one who is dying. If we get the same amount of water as last time, and I believe that we will, then only one of us has a hope in Hell of staying alive. The rest of us will die of thirst. The problem is: who is going to be the lucky man?"



No one said anything, but Lacey flexed his muscles, and both Carter and Benson looked warily at him.

"That's not the way, Lacey," Banner said quietly. "It isn't as simple as that. We're not animals, but if we act like animals we must expect to be treated like them. What we do may not be as important as why we do it."

"How do you mean?"

"Look at it this way. We are strangers, arriving unheralded, and perhaps unwanted in a sector of space already occupied by an intelligent race. How are we to be treated? Are we decadent, toying with the remnants of our golden age? Are we brutes, prematurely advanced and bent on conquest? Or are we a race who has kept its culture in step with its technological achievements? How are they to know?"

Carter licked swollen lips. "Make a test?" he suggested.

"What else?" Banner asked.

Benson coughed. He held a paper-like cup in one hand, a paper cup that held water. "I think its feeding time again. I found this a moment ago." He began to raise it to his lips.

Lacey roared and lunged forward. Benson saw him coming and desperately tried to drink while he was still able. Banner and Carter flung themselves into the fray. Banner had only one thought. To save the precious water. He chopped savagely at Lacey's bull neck, elbowed Carter in the stomach, and snatched the thin cup from Benson's hand.

He stood breathing heavily, fighting the craving to empty the cup at a draught. Instead he forced himself to be rational. Knowing that he had time for nothing but a quick decision.

"Fair shares," he gasped. "One swallow each."

He held the thin cup to each of their lips in turn, jealously measuring the contents equally between them. When his own turn came, it required all of his will power to save a little for the sick man. Even as he poured the last few drops between the unconscious man's parted lips, the cup crumpled into pulp.

He sat down listlessly. The little water he had taken seemed only to accentuate his thirst. Now it was hard to think of anything else.

"We had better come to a decision," he said heavily "and make it quick. I don't want to go through that again."

"He was going to drink it all," Lacey snarled. "I tried to stop him."

"You mean you tried to hog the lot for yourself."

"Shut up, Benson. You too, Lacey. The water should have been handed to me. Don't let it happen again." Banner put what authority he could into his voice. The last thing he wanted was discord.

"As I see it we have a limited choice. We can give the water to the sick man. That would be noble, but illogical. We could keep him alive only as long as we could give him the water. Then he would die through inability to help himself. So excessive care of our sick would be suicide."

Carter protested. "Can't we share the water?"

"There isn't enough." Banner reminded gently. "In case you feel squeamish let me assure you that he will not come out of his coma without medical attention which we can't give him. The water cannot be stored. It has to be drunk when available, or the container will dissolve and it will run to waste."

He felt irritation. "I'm a physician, sworn to aid and comfort the sick. Do you think I like abandoning him? And as a physician let me assure you that if we shared the water we still die, and in a case like this a little would be worse than none at all."

"Sorry, Doc," Carter muttered.

"We could be fatalists, just sit around and look at the water, not touching it. If we can't all live, then we'll all die," Banner snorted. "That would be insane. If there's a chance for one of us then we must take it. It would take a race hopelessly decadent, without any will to live at all, to be capable of such an action. I doubt if we could even make a good pretence at it."

He sighed. "As I see it there is only one thing we can do. Either fight over the water, or decide who is to have it all. If we fight over it, then probably no one will get any, for it will be spilt, or we will injure each other. That way would be a direct reversion to the brute.—So? How do we decide who is to have it all—and remember, the rest have to make sure that he gets it."

"How do you mean?" Benson asked.

"When men get really thirsty, when the craving for water gets too strong for them, then good resolutions are forgotten." Banner looked around. "As yet any of us could be picked to get the ration, maybe whoever gets it will be able to get the rest of us out of this place. But not if he has three thirst-crazed men ganging up on him. He wouldn't stand a chance. So those who have to go without must restrain not only themselves, but each other. Agreed?"

"I guess so," grunted Lacey. The other two nodded.

"Good. Now to decide." Banner pulled hairs from his head, knotted one, and held it together with three others in his hand. "The hair with the knot is winner. Who picks first?"

Lacey swallowed, put out a hand, drew it back. Carter shrugged. "One chance in four." He said and drew. No knot.

Benson stepped forward quickly, snatched a hair, slumped down again in despair. Lacey grinned. "Even Stephen." As he drew, muscles stood out along the thick shoulders.

For a moment Banner thought his heart had stopped, then at Lacey's curse he looked down at his hand. He held the knotted hair. As if in ironical reward, a cup of water appeared at his feet.

They were cunning, he thought drearily. Diabolically cunning. They had struck at the prime dynamic. The instinct of self-preservation. The fundamental urge of the whole human race. The driving, overwhelming

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urge to survive. *Survive!* Threaten a man's life, his children, his race, and the thin veneer of culture breaks, slips, and the true man shows through. Noble. Self sacrificing. Cunning. Brutal. Whatever a man or race truly is will show when survival is threatened.

The water had tasted like nectar, but he hadn't really enjoyed it. He had drunk it quickly, conscious of the envious stares of the others, conscious of the dying man. Almost he had felt ashamed, but deep within him something had gloated, gloated because he was going to survive.

He stirred restlessly on the floor. He lay a little apart from the others, and for want of something to do stepped across to the sick man. His condition was unchanged. Banner pursed his lips in thought, but kept his suspicions to himself. Automatically he examined the walls again, but found what he had expected, they were as solid as before.

Time passed. The next drink appeared directly in front of Lacey, almost at his feet. His arm twitched, but he made no other move. Banner hesitated, then deliberately drank it down. The quantity was less this time he noticed. About eight ounces instead of the former ten.

The next drink was wasted. Like the other it appeared directly before Lacey. Banner stooped to pick it up, and the next moment was fighting for his life.

A savage blow to the side of his head sent him reeling across the floor. Cat-like he sprang to his feet, rushed at Lacey, and almost immediately realised his mistake. Lacey was strong, now, maddened by thirst he was irresistible. Banner felt the impact of sledge-like fists, the salty taste of his own blood. Dimly he felt others helping him, the muffled curses and slap of blows. It was soon over, not even Lacey had the strength for a prolonged effort, but the damage had been done.

When Banner looked around for the water he saw a crumpled cup and a thin film of wetness. Someone in the struggle had kicked it over.

"You see what I meant?" he asked bitterly. "Is it impossible to prove that we are human, not animal? Don't you realise that is just what they," he gestured towards the walls "were waiting to see if we would do?"

"Okay, Doc," croaked Carter. "Don't be too hard. He's half crazy. We'll see it doesn't happen again."

Banner stared at him for a moment, started to speak, then turned away. He didn't feel very proud of himself. It was easy for him to talk, but for the others there was nothing but the prospect of a very unpleasant death. They were relying on him to save them, and with a sick feeling of impotence he knew he couldn't do it.

He sat apart, nursing his bruises and staring at the far wall. His thirst was now a maddening thing, burning up his tissues, even it seemed, his very ability to think. He wondered vaguely how the others were, but knowing his helplessness made no move to go over to them.

All he could do was to sit and wait for the next drink. He would share it he decided. No matter how illogical it was, how senseless, he would share it. He couldn't just sit and watch his fellows die. Life at that price wasn't worth having.

He must have stared at it for a full ten seconds before he recognised the cup. It was directly before him, a foot from the far wall, and had appeared as mysteriously as the others. Even as he picked it up something made him

hesitate. He looked, and one glance confirmed the impression of lightness. The cup was empty.

A croak made him turn. Lacey lay propped on one elbow, his eyes fixed imploringly on Banner, one hand outstretched. Banner stared steadily at the bloodshot eyes, the cracked lips, the swollen protruding tongue.

"It's finished," he said gently. "There is no water. There won't be any water. The cup was empty."

Lacey sighed and fell back, his head hitting the floor with a dull sound. In sudden rage Banner flung the cup from him, and resisted an impulse to beat at the walls of the room. Instead he lay down, closed his eyes, and began to think.

With an effort of will he forced himself to ignore the discomfort of his body, his companions, the desperate need to hurry. He took deep even breaths, relaxing as far as was possible on the hard floor. When he had divorced himself from his immediate surroundings, he deliberately began to think over the whole thing as he would an interesting problem.

After a while he smiled, opened his eyes, climbed to his feet—and walked through the wall.

"It was a test, of course," Banner explained to Captain Burges, Commander of the *Starbird*. "We realised that quite early. Where I went wrong was in falling into the common error of being a bit too clever."

Burges shook his head in bafflement. "It still seems almost unbelievable. If it weren't for the instruments I'd be ready to swear that nothing at all could have happened. As far as we were concerned the alien ship made

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actual contact, veered off, and commenced signalling. The surprise was that they signalled in English, the next that you five were in the sick bay. How is Anton by the way?"

"The sick man?" Banner sipped gratefully at a long cool glass. "Fine. He'll be back on duty soon." He grew thoughtful. "I suppose that they must have blacked out the entire ship, selected us five, and only revived you when we were back. Aside from the chronometers you couldn't have told anything had happened."

"But why did they do it. Why couldn't they just have contacted us in the normal way?"

"That's what we would have done," Banner agreed. "But would we have been right? After all they are probably experienced in meeting alien cultures. We are not."

Burges nodded. "I see. You think that they have devised some sort of a test as a working basis." He refilled Banner's glass. "But what made you walk through the wall. You said that it was solid?"

Banner chuckled. "It was. As I said, I was just a little too clever. I couldn't see the obvious. I thought that it was a test to see how we would react to a given situation. Would we ignore our sick, fight like brutes, etc?" He shook his head. "After all the clues they deliberately gave us I feel pretty dumb. The dying man, who didn't die. The cups of water coming through the wall, and the final one, the empty one, pointing to the way out."

"I still don't get it."

"When I got hold of myself and sat down to think things out I was suddenly reminded of something. Years ago in the University we played a joke on a student. We locked him in his room. He had a date and did everything but pull the door down. After he had quietened down we crept up and unlocked it. He didn't know this, of course," Banner chuckled. "You should have seen his face when hours later, after he had missed his date, a friend walked into the room merely by turning the doorknob."

"You see," he said seriously. "That student had tried the door so often and found it locked, that he just didn't think of it as otherwise. We had so convinced ourselves that the room was one solid piece, that we just didn't think of it as anything but a breakproof cell."

"And was it?"

"Of course. Perhaps not at first, but I'm inclined to believe that even then we could have walked out of it merely by refusing to believe that it was totally solid."

"What happened when you did?"

"Nothing. I don't remember even reaching the other side. I woke up in the sick bay. My thirst was gone and I felt fine. The rest you know."

Burges looked thoughtful. "What would have happened if you hadn't walked through the wall?"

Banner looked at the tall glass in his hand. "I believe that we would have died there," he said quietly. "Any race capable of making such a test would have no tolerance for stupidity."

The door opened and Lacey stepped through. "Excuse me, sir," he said to Banner. "Anton wants you in the sick bay. He has a problem he thinks you could help him with."

He only just ducked the contents of the accurately thrown glass.

THE END



Exploration of Space. By Arthur C. Clarke, B.Sc. Temple Press, London. 12/6.

Following the success of his earlier technical volume *Interplanetary Flight*, also published by Temple Press, Mr. Clarke now enlarges his previous theme upon the immediate problems of space flight, and sets it against the broader pattern of astronomy—a science which will play a vital part in astronautics.

The opening chapters are somewhat expanded versions of many aspects already covered in the previous book, but this time entirely non-technical in language and readily understandable by the casual reader. For such readers Mr. Clarke reviews the growth of the ideas leading up to present-day experiments and the basic principles of rocket design, interspersed with chapters discussing the Solar System, navigation and communications in space, and the exigencies of life while in flight.

It is the second half of the book which will interest most readers, however, for Mr. Clarke has devoted much time in emphasising the necessity for building a satellite station in an orbit outside Earth, and to the building of a Lunar Base. So clearly does he depict the building and operation of these two essential steps in the conquest of our Solar System, that one can readily visualise the giant interplanetary vessels being refuelled from the fussy space tugs, or the busy scenes which one day may well take place on the Moon. And, in case your mental eye is not too sharp, there are four beautiful colour plates and some fifteen illustrations to assist you.

The final two chapters are the most fascinating of the entire book if you have ever looked at the heavens and wondered. More so if you have ever looked through a small telescope on a clear night and caught glimpses of some of the neighbouring galaxies and island universes Mr. Clarke discusses in *Other Suns than Ours*, and *To the Stars*. Within these two chapters the hardened science fiction reader can lose himself in wonder. While our own group of planets now seem within reach, the rest of the Cosmos would appear to be for ever out of reach.

Several of the illustrations were designed by Mr. R. A. Smith, of the British Interplanetary Society (of which Mr. Clarke is the present Chairman), and these, painted by Leslie Carr, lend a realistic atmosphere to the text.

The Sands of Mars. By Arthur C. Clarke, Sidgwick & Jackson, London. 219 pp. 10/6.

Reading Mr. Clarke's first British novel immediately after his technical book is an experience very few people will share with me. Which is a pity, because the art and technique of applying science to "science" fiction is more readily understandable. One will find in this story of the maiden voyage of the *Ares* many of the theories expounded by the author in the book reviewed on the previous page. In *Sands of Mars*, however, they are

worked into the plot as facts, and the reader can appreciate the shift from hypothesis to statement.

Predominantly, the story concerns a science fiction writer, Martin Gibson, who, having made a world-wide reputation for himself in the dawn of interplanetary travel, is invited as the only passenger upon the first all-passenger ship to head for Mars. His reactions to actual events, both in space and upon Mars, are considerably different from his fictional ones—the author subtly pointing out that space travel will not be quite the same as the armchair astronauts imagine.

No cosmic cataclysms impend throughout the story. In fact, if that is what you are looking for, this book is not for you. It is so gentle in its approach to the very near future, that it is not until long afterwards the reader will realise he has never read anything so simple, so *possible*. Where most fiction writers usually take space travel for granted, Mr. Clarke has set out to explain fictionally just what is involved in a trip to Mars, and the thoughts and reactions of the tiny colony struggling for existence there.

There are some minor mysteries involving the colonists and their air supply, and a light love interest played by two minor characters which does little to slow the general interest in the book, although one gets the impression that Mr. Clarke is a *bachelor* B.Sc. ! One can perhaps identify the author to his central character, in a nostalgic manner, for undoubtedly Mr. Clarke would like to make the trip to Mars within his lifetime, and because of this, his writing carries a far stronger conviction than the average writer does.

The possibilities envisaged in this story and the manner of presentation overshadow the slight weakness of characterisation, which the author is rapidly overcoming.

JOHN CARNELL

The Princess of the Atom. By Ray Cummings. T. V. Boardman & Co. Ltd., London. 191 pp. 8/6.



There have been many fascinating stories of journeys into the smallness of atom worlds—indeed, one theory is that we ourselves live out our time upon an atom world of an infinitely larger Cosmos. Ray Cummings's story is as exciting and adventurous as any yet written. It tells of Dianne, a princess of an atom world who is left as a baby in our own world, to escape the machinations of Togaro, who plans to rule the Universe.

How she returns to her own atom world, and with the help of two Earthmen who go into the infinite with her, outwits him, saves her own world, and returns to ours, makes a story in the best traditions of Burroughs and other writers who can hold their audience by the

sheer will-power of story telling.

Cummings, now in his seventies, was at one time secretary to Thomas Edison. He has been a prolific writer for over thirty years, a favourite theme of his being micro- and macro-cosmic stories. *Princess of the Atom* is the third of a trilogy (a separate story in itself), of which *The Girl in the Golden Atom* and *People of the Atom* were predecessors.

FRANK ARNOLD

NEW WORLDS

The Silver Locusts. By Ray Bradbury. Rupert Hart-Davis. 232 pp. 12/6.

Rupert Hart-Davis is a publisher still young in the field, but with an amazing record of fine productions to his honour. In the space of about four years his name has become synonymous with high literary merit and typographical excellence. He has shown his usual perspicacity in selecting this volume of stories to add to his list, and has dressed it gracefully in grey buckram. Within lies Bradbury . . .

There is no doubt that the future will see many critical studies of Bradbury's work, and to these scholars must be left the analysis of what makes Bradbury a genius. In the few years since the war he has won many awards and broken into the most exclusive short story markets in America. It is impossible to resist the wonderful blend of coolness, poetry and imagination that hall-marks all of his works.

In this review we have only room to blow the clarion for those who have not as yet read Bradbury, or, at least (for Bradbury like most geniuses is immensely prolific in his writing), have not read his Martian stories. No one who likes fantasy and insists on art can afford to miss this book. Originally titled *The Martian Chronicles* in its American edition, its new title catches something of the spirit behind this collection of stories; the spirit of half-cynical regret as virile Man descends upon blissful, fairy-like Mars, setting up hot-dog stands, rocket dromes, prefabs, boom towns, hot gospel missions, pouring in despite all the subtle fighting of the Martians. Only twenty-seven years are encompassed by the stories, yet in that time Man lands, colonises,

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and wilts. In the end refugees from war-scarred Earth flee to depopulated Mars and become the new, lonely race of Martians. The silver plague of ships pass over Mars and pass on.

But it is the writing that sets these stories high above all other attempts to trace future history. Bradbury knows science, but he is not particularly concerned over logicity. He uses science as Lovecraft used folklore—as a hook for his poetic imagination. With this there is an earthy truth, a warm humour about his characters, and a fine concise art about their conversation which, blended with his poetic imagery, makes an effect eminently suitable to the remote setting and not-so-distant future. *The Silver Locusts* is a miracle of writing as unique as Mars itself.

ERIC F. WILLIAMS

The Day of the Triffids. By John Wyndham. Michael Joseph, London. 302 pp. 10/6.

Daily Graphic Book Find of the Month (August)

The Triffids—mobile plant-entities accidentally loosed upon the world during a laboratory experiment—are as well known in Australia and North America as they are in Continental Europe, for Mr. Wyndham's gripping first novel is spreading round the world almost as fast as his fictional entities did. If you should one day stand on the steps of Eros in busy Piccadilly Circus and try to visualise the author's description of a silent Regent Street with odd groups of groping human beings stumbling along, banging into parked or wrecked cars, or quietly going mad because of an almost universal blindness which has struck the world overnight, your imagination will break down. But, step into the pages of this book, and the scene will begin to take on life. Slowly you will hear the muted roar which is the heartbeat of the Metropolis falter and finally stop, to be replaced by the swish of the Triffids as their sting metes out swift death, for, in the country of the blind, the one-eyed man is king—and the Triffids could "see" where most of humanity couldn't.

Simply stated, this world disaster is caused by the Earth passing through a brilliant meteoric stream which lights up the night sky with dazzling green flashes. So fascinating is the sight that most people watch it for hours, and only those who are shut away from the sky miss the spectacle. In the morning only those who missed it can see. The rest of the world is permanently blind.

The chaos which ensues, the stark drama, and finally the complete disintegration of civilisation, is a magnificent backdrop for the main action concerning a few small groups of sighted survivors and their attempts to salvage some of the knowledge of our times, in the hope that human life will not give way to the alien world of the Triffids.

Characterisation is strong throughout the book, and, not only are the people real and alive, but the Triffids themselves are cleverly given a kind of racial character, which is one of the most impressive aspects of the novel.

The first edition of this book was sold out and reprinted before publication day. This is not in the least surprising. When you have read it you will readily understand that this is one of the most superior novels of our time, comparable to the impact H. G. Wells made when he wrote *The Time Machine*.

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